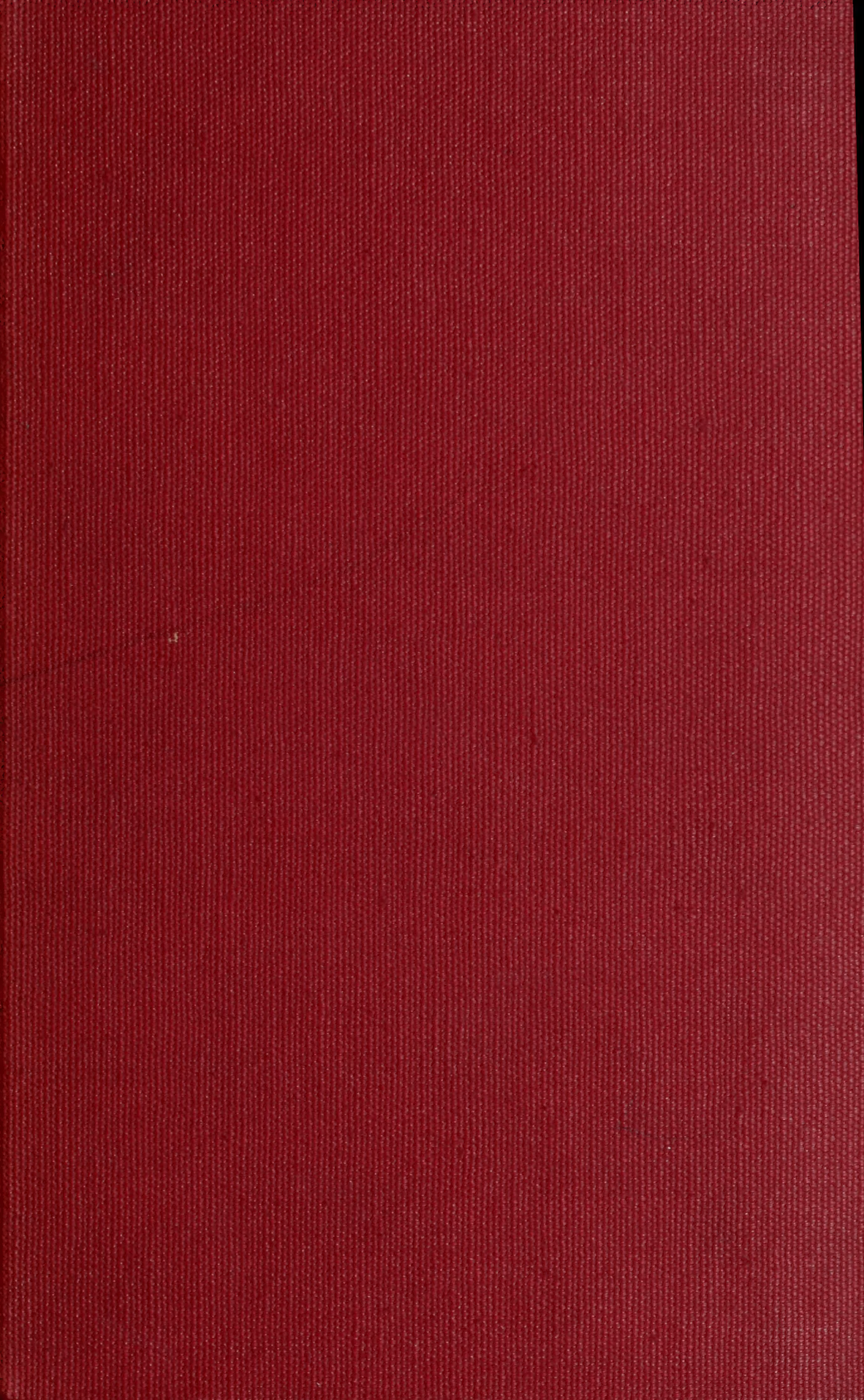








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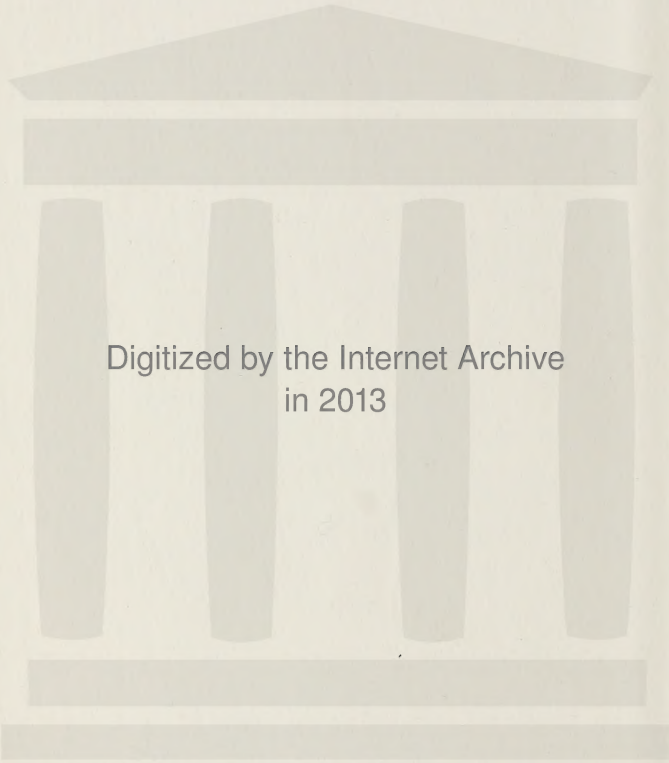












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THE  
CLEMSON  
AGRICULTURAL  
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RECORD  
FORTY-FIFTH YEAR

---

CATALOG NUMBER  
1937—1938

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ANNOUNCEMENTS 1938-1939





THE  
CLEMSON  
AGRICULTURAL  
COLLEGE

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RECORD  
FORTY-FIFTH YEAR

---

CATALOG NUMBER  
1937—1938

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ANNOUNCEMENTS 1938-1939

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MARCH

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APRIL

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JUNE

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# COLLEGE CALENDAR

## SECOND SEMESTER 1937-1938

|                                     |            |
|-------------------------------------|------------|
| Registration, Second Semester.....  | January 31 |
| Final College Examinations end..... | May 28     |
| Commencement Exercises begin.....   | May 29     |
| Graduating Exercises .....          | May 31     |

## SESSION 1938-1939

|                                                |                     |
|------------------------------------------------|---------------------|
| Entrance Examinations.....                     | September 12 and 13 |
| Matriculation, new students.....               | September 14        |
| First payment due Treasurer, new students....  | September 14*       |
| Matriculation, upperclassmen.....              | September 19        |
| First payment due Treasurer, upperclassmen...  | September 19*       |
| Registration, upperclassmen .....              | September 20        |
| Second payment due Treasurer, all students...  | November 24*        |
| Thanksgiving Day (holiday).....                | November 24         |
| Christmas Holidays begin at 12 Noon.....       | December 21         |
| Christmas Holidays end at 10 P.M.....          | January 3           |
| First Semester ends.....                       | February 4          |
| Third payment due Treasurer, all students....  | February 6*         |
| Registration, Second Semester.....             | February 6          |
| Mid-Year Graduating Exercises.....             | February 7          |
| Fourth Payment due Treasurer, all students.... | April 7*            |
| Final College Examinations end.....            | June 3              |
| Commencement Exercises begin.....              | June 4              |
| Graduating Exercises .....                     | June 6              |

The above schedule is subject to change by the Faculty. The schedule for the 1938 summer school will be announced in the summer school catalog.

\*Important Note: Settlement of College Fees. The Treasurer of the College is the financial officer, and all transactions relating to payments must be made through him. The entrance payment includes the full cost of uniform, plus fees and living expenses for the first quarter, and must be paid before a student can be assigned to a room in barracks. Other payments are due quarterly in advance as indicated above. A quarterly payment deferred by virtue of reason satisfactory to the Treasurer may be extended at the discretion of the Treasurer for a period not exceeding twenty days. At the expiration of this grace period, the names of those in arrears will be automatically removed from the college rolls.

Remittances should be made in cash, by money order, cashier's check, or local check made payable to S. W. Evans, Treasurer, and should be paid at the Treasurer's Office or mailed directly to S. W. Evans, Treasurer, Clemson, South Carolina.



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# BOARD OF TRUSTEES

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## LIFE MEMBERS

|                                |                               |
|--------------------------------|-------------------------------|
| W. W. BRADLEY, <i>Chairman</i> | Columbia, Richland County     |
| A. F. LEVER                    | Columbia, Richland County     |
| PAUL SANDERS                   | Ritter, Colleton County       |
| J. E. SIRRINE                  | Greenville, Greenville County |
| CHRISTIE BENET                 | Columbia, Richland County     |
| T. B. YOUNG                    | Florence, Florence County     |
| R. M. COOPER                   | Wisacky, Lee County           |

## TERM EXPIRES 1940

|                    |                            |
|--------------------|----------------------------|
| F. E. COPE         | Cope, Orangeburg County    |
| W. D. BARNETT      | Columbia, Richland County  |
| J. B. DOUTHIT, JR. | Pendleton, Anderson County |

## TERM EXPIRES 1942

|                |                              |
|----------------|------------------------------|
| S. H. SHERARD  | Ninety Six, Greenwood County |
| W. C. GRAHAM   | Pamplico, Florence County    |
| EDGAR A. BROWN | Barnwell, Barnwell County    |

---

|                               |                |
|-------------------------------|----------------|
| S. W. EVANS, <i>Secretary</i> | Clemson, S. C. |
|-------------------------------|----------------|

---

## STANDING COMMITTEES OF BOARD

AGRICULTURAL: Sherard, *Chairman*; Young, Cooper, Lever, Sanders, Cope, Douthit.

(This committee is also the Veterinary Committee, the Crop Pest Commission, and the Experiment Station Board of Control.)

EXECUTIVE: Benet, *Chairman*; SIRRINE, Young, Cooper, Brown.

FERTILIZER: Cope, *Chairman*; Sherard, Sanders, Barnett, Douthit.

\*FINANCE: Benet, SIRRINE, Lever, Brown, Barnett, Douthit.

## STATED MEETINGS OF BOARD

3:00 P.M.—Third Friday in March.

3:00 P.M.—Third Friday in June.

3:00 P.M.—Fourth Monday in October.

---

\*Chairman to be elected.

## BOARD OF VISITORS 1937

---

|                    |              |
|--------------------|--------------|
| W. O. Coleman      | Greenwood    |
| (Hold-over member) |              |
| E. T. H. Shaffer   | Walterboro   |
| Carl G. Planck     | Charleston   |
| S. H. Swint        | Graniteville |
| D. B. Cloaninger   | Lykesland    |
| J. B. Harris       | Greenwood    |
| William Stringer   | Anderson     |
| A. B. Taylor       | Spartanburg  |
| T. M. Marchant     | Greenville   |
| A. S. Llewellyn    | Camden       |
| A. E. Jury         | Winnsboro    |
| Ransom J. Williams | Marion       |
| L. M. Lawson       | Darlington   |

## OFFICERS CLEMSON ALUMNI CORPORATION

---

### *President*

J. T. Lazar, '12-----Florence, S. C.

### *First Vice-President*

Louis Balentine, '23-----Greenville, S. C.

### *Second Vice-President*

F. J. Jervey, '14-----Washington, D. C.

### *Secretary-Treasurer*

J. H. Woodward, Ex. '03-----Clemson, S. C.

### *Assistant Treasurer*

S. W. Evans, Ex. '02-----Clemson, S. C.

### *Board of Directors*

|                   |                           |                   |
|-------------------|---------------------------|-------------------|
| District 1        | C. N. Gignilliat, '02     | Seneca            |
| District 2        | W. K. Livingston, Ex. '97 | Greenville        |
| District 3        | R. E. Bass, '18           | Rock Hill         |
| District 4        | G. A. Hanvey, '98         | Abbeville         |
| District 5        | J. W. McLure, '14         | Sumter            |
| District 6        | O. P. Lightsey, '17       | Hampton           |
| District 7        | William Schirmer, '17     | Charleston        |
| District 8        | J. T. Lazar, '12          | Florence          |
| District 9        | R. H. Fike, '08           | Atlanta, Ga.      |
| District 10       | F. J. Jervey, '14         | Washington, D. C. |
| District 11       | J. C. Miller, '21         | Baton Rouge, La.  |
| District 12       | T. R. Reid, '12           | Little Rock, Ark. |
| Director at Large | T. W. Thornhill, '14      | Charleston        |
| Director at Large | R. B. Waters, '16         | Columbia          |
| Director at Large | Louis Balentine, '23      | Greenville        |



## OFFICERS OF ADMINISTRATION

---

ENOCH WALTER SIKES, PH.D., LL.D.  
*President*

CHARLES WARREN WEEKS, COLONEL, INFANTRY, U. S. ARMY  
*Commandant and P. M. S. and T.*

SAMUEL WILDS EVANS  
*Treasurer and Secretary of Board of Trustees*

JAMES CORCORAN LITTLEJOHN, B.S.  
*Business Manager*

LEE W. MILFORD, M.D.  
*Surgeon*

GUSTAVE ERNEST METZ, B.S., M.A.  
*Registrar*

HERBERT PRESS COOPER, PH.D.  
*Dean, School of Agriculture and  
Director, Agricultural Experiment Station*

WILLIAM BARRE AULL, B.S.  
*Vice-Dean, School of Agriculture*

RUPERT ALONZO MCGINTY, B.S., A.M.  
*Vice-Director, Agricultural Experiment Station*

FRED HARVEY HALL CALHOUN, PH.D.  
*Dean, School of Chemistry*

DAVID WISTAR DANIEL, A.M., Litt.D.  
*Dean, School of General Science*

SAMUEL BROADUS EARLE, A.M., M.E., LL.D.  
*Dean, School of Engineering*

WILLIAM HAROLD WASHINGTON, B.S., M.S.  
*Dean, School of Vocational Education and  
Dean of the Summer School*

HORACE HAROLD WILLIS, B.S.  
*Dean, School of Textiles*

BRUCE DAYVAULT CLOANINGER  
*Secretary, Board of Fertilizer Control*

WALTER KEYS LEWIS, V.S., M.D.V.\*  
*Director of Livestock Sanitary Work, State Veterinarian*

DAVID WAYNE WATKINS, B.S., M.A.  
*Director of Extension Service*

CORNELIA AYER GRAHAM, B.S.  
*Librarian*

---

\*Office: State Office Building, Columbia, S. C.

# FACULTY

---

## ENOCH WALTER SIKES

*President*

M.A., Wake Forest College; Ph.D., Johns Hopkins University.

---

ANDERSON, ROBERT LOVELL, *Associate Professor of Architecture.*

A.B., Princeton University, 1925; Graduate Work, Columbia University, 1925-1926; Harvard University, 1929-1930; Summer Work, New York University, 1936.

\*ANDREWS, FLOOD SHIELDS, *Associate Professor of Horticulture.*

B.S., Virginia Polytechnic Institute, 1924; M.S., Michigan State College, 1928.

ARMSTRONG, GEORGE MILLER, *Professor of Botany and Bacteriology.*

B.S., Clemson Agricultural College, 1914; M.A., University of Wisconsin, 1917; Ph.D., Missouri Botanical Garden, Washington University, 1921.

AULL, GEORGE HUBERT, *Professor of Agricultural Economics.*

B.S., Clemson Agricultural College, 1919; M.S., University of Virginia, 1928; Ph.D., University of Wisconsin, 1937.

AULL, WILLIAM BARRE, *Vice-Dean, School of Agriculture; Associate Professor of Bacteriology.*

B.S., Clemson Agricultural College, 1907; Graduate Work, University of Virginia, 1909-1910; Iowa State College, Summers 1925, 1927.

\*AYERS, THOMAS LAWRENCE, *Associate Professor of Vocational Education.*

B.S., Clemson Agricultural College, 1918; M.A., George Peabody College, 1929.

BARNETT, DAVID EUGENE, *Assistant Professor of Military Science and Tactics; Assistant Commandant.*

Major, Infantry, U. S. Army; B.S., Clemson Agricultural College, 1915; Graduate, The Infantry School, 1921.

BLAIR, WILLIAM GARDINER, *Assistant Professor of Carding.*

New Bedford Textile School, 1908.

\*\*BLOOM, LEONARD, *Acting Professor of Sociology and Psychology.*

B.S., 1933, A.M., 1934, Boston University; Graduate Work, Harvard University, Summer 1936; Ph.D., Duke University, 1937.

BOOKER, LEONARD ROWLAND, *Itinerant Teacher-Trainer and Assistant State Supervisor Industrial Education.*

B.S., Clemson Agricultural College, 1925; Graduate Work, University of Chicago, 1927; M.S., University of Tennessee, 1932.

BOWEN, WILLIAM CLAYTON, *Assistant Professor of Agricultural Education.*

B.S., Clemson Agricultural College, 1932; Colorado State College, Summer 1937.

\*\*\*BRACKETT, RICHARD NEWMAN, *Professor of Chemistry.*

A.B., Davidson College, 1883; Ph.D., Johns Hopkins University, 1887.

BRADLEY, MARK EDWARD, *Professor of English.*

A.B., Erskine College, 1898; Graduate Work, University of Chicago, Summers 1904, 1910; University of North Carolina, Summer 1927.

\*BREARLEY, HARRINGTON COOPER, *Professor of Sociology and Psychology.*

A.B., 1916, M.A., 1917, University of South Carolina; Syracuse University, 1926; Ph.D., University of North Carolina, 1928; Columbia University, Summer 1933.

---

\*On leave 1937-1938.

\*\*In place of Dr. H. C. Brearley, on leave.

\*\*\*Deceased.

- BROCK, JOHN LELAND, *Assistant Professor of Vocational Education*.  
B.S., Clemson Agricultural College, 1927; M.A., George Peabody College, 1936.
- BROWN, HUGH MONROE, *Professor of Physics*.  
B.A., 1920, M.A., 1921, University of Denver; Ph.D., University of California, 1927.
- BURTON, WILLIAM WILDER, *Assistant Professor of Mathematics*.  
Ph.B., Brown University, 1906; M.A., Mercer University, 1918.
- CALHOUN, FRED HARVEY HALL, *Dean, School of Chemistry and Geology, Professor of Geology and Mineralogy*.  
B.S., 1898, Ph.D., 1902, University of Chicago.
- CAMPBELL, THOMAS ALEXANDER, JR., *Assistant Professor in Textiles*.  
B.S., Clemson Agricultural College, 1928.
- CARODEMOS, PETER, *Associate Professor of Chemistry*.  
B.S., Tufts College, 1922; Ph.D., Cornell University, 1927.
- CARTEE, EUGENE FRANKLIN, *Acting Associate Professor of Warp Preparation and Knitting*.  
B.S., Clemson Agricultural College, 1925; M.S., University of Tennessee, 1937.
- CHAMBERS, HERBERT OTTO, *Assistant Professor of Religion*.  
Emory College, 1902-1904; Graduate in Theology, Vanderbilt University, 1911.
- CLARKE, ELWYN LORENZO, *Professor of Civil Engineering*.  
B.S. in C.E., 1902, C.E., 1931, University of Illinois.
- COLLINGS, GILBEART HOOPER, *Associate Professor of Agronomy*.  
B.S., Virginia Polytechnic Institute, 1915; M.S., University of Illinois, 1917; Ph.D., Rutgers University, 1925.
- COOPER, HERBERT PRESS, *Dean, School of Agriculture; Director, Agricultural Experiment Station; Professor of Agronomy*.  
B.S., Clemson Agricultural College, 1911; M.S., University of Wisconsin, 1916; Ph.D., Cornell University, 1922.
- CRANDALL, WILL GILES, *Professor of Vocational Education*.  
B.S., Cornell University, 1918; Graduate Work, Cornell University, Summers 1929, 1930, 1931.
- CREDLE, ALEXANDER BERRY, *Assistant Professor of Electrical Engineering*.  
E.E., 1930, M.E.E., 1931, Cornell University.
- CROUCH, SYDNEY, J. L., *Professor of Religion*.  
Scotch College, Western Australia, 1910; Biblical Seminary, New York, 1915; B.D., Hartford Theological Seminary, 1922; Th.D., Union Theological Seminary, Richmond, Virginia, 1937.
- CURTIS, DONALD DEXTER, *Professor of Mechanics and Hydraulics*.  
B.E., 1919, M.S., 1931, University of Iowa; Graduate Work, University of Washington.
- DANIEL, DAVID WISTAR, *Dean, School of General Science, Professor of English*.  
A.B., Wofford College, 1892; M.A., Vanderbilt University, 1901; Graduate Work, University of Chicago, Summer 1899; Litt.D., Wofford College, 1914.
- DAVIS, JOE WALLACE, *Assistant Coach*.  
B.S., Southwestern, 1929.
- DAY, WILLIAM GANTT, *Assistant Professor of Carding and Spinning*.  
B.S., Clemson Agricultural College, 1931.



- DUMAS, ALBERT HUGH, *Assistant Professor of Military Science and Tactics, Assistant Commandant and Adjutant.*  
Major, Infantry, U. S. A.; B.S., Alabama Polytechnic Institute, 1917; Graduate, The Infantry School, 1926.
- DUNAVAN, DAVID, *Assistant Professor of Entomology and Zoology.*  
B.S., Oregon Agricultural College, 1925; M.S., Iowa State College, 1928; Graduate Work, Cornell University, Summers 1929, 1931, 1935.
- DUNLAP, GEORGE HEYWARD, *Acting Assistant Professor of Carding and Spinning.*  
B.S., Clemson Agricultural College, 1928; Graduate Work, University of North Carolina, Summer 1935; Massachusetts Institute of Technology, Summer 1936.
- EARLE, SAMUEL BROADUS, *Dean, School of Engineering, Professor of Mechanical Engineering, Director of Engineering Experiment Station.*  
A.B., 1898, A.M., 1899, Furman University; M.E., Cornell University, 1902; LL.D., Furman University, 1932; General Electric Company.
- EATON, ROBERT KNIGHT, *Professor of Carding and Spinning.*  
A.B., Bowdoin College, 1905; Graduate Work, Philadelphia Textile School.
- EDMOND, JOSEPH BAILEY, *Associate Professor of Horticulture.*  
B.S., Michigan State College, 1923; M.S., Iowa State College, 1924; Ph.D., University of Maryland, 1933.
- EDWARDS, GEORGE HERBERT, JR., *Assistant Professor of Mathematics.*  
B.A., 1913, M.A., University of South Carolina; Graduate Work, University of Chicago and Columbia University.
- FEELEY, ROBERT OLIVER, *Professor of Veterinary Science.*  
D.V.S., New York University, 1906.
- FERNOW, BERNHARD EDWARD, *Professor of Mechanical Engineering.*  
A.B., 1904, M.E., 1906, Cornell University.
- FERRIER, WALLACE THOMAS, *Associate Professor of Agricultural Economics.*  
A.B., Tarkio College, 1910; M.S., Colorado State College, 1930; Graduate work, University of Colorado and University of Minnesota.
- FITZ PATRICK, THOMAS KEVIN, *Assistant Professor of Architecture.*  
B.Arch., 1932, M.Arch., 1933, Massachusetts Institute of Technology; Graduate Research in Architectural Education, Massachusetts Institute of Technology, 1934.
- FREEMAN, EDWIN JONES, *Associate Professor of Machine Shop.*  
B.S., Clemson Agricultural College, 1922.
- FULMER, HENRY LUMAN, *Research Professor of Education.*  
B.S., Clemson Agricultural College, 1911; M.S., 1913, Ph.D., 1917, University of Wisconsin; Graduate Work, George Peabody College, 1929-1930.
- \*FULMER, JOHN LEONARD, *Assistant Professor of Agricultural Economics.*  
B.S., Clemson Agricultural College, 1933; M.S., Cornell University, 1937.
- GAMMON, JAMES POLK, *Assistant Professor of Military Science and Tactics, Assistant Commandant.*  
Major, Infantry, U. S. A.; A.B., Fredericksburg College, 1913; Graduate Company Officers Course, The Infantry School, 1926.
- GATES, JAMES EDWARD, *Professor of Economics and Government.*  
B.S., University of Kentucky, 1929; Graduate Work, University of Kentucky, 1929-1930; University of Chicago, 1930-1931; University of Virginia, 1931-1933; Ph.D., University of Virginia, 1935.

- GLENN, HOWARD EMMITT, *Associate Professor of Civil Engineering*.  
B.S. in C.E., 1922, C.E., 1927, University of Kentucky.
- GODFREY, WILLIAM EMERA, *Professor of Physics*.  
A.B., 1893, A.M., 1898, Mercer University; Graduate Work, Summer Quarters 1898, 1899, 1900, University of Chicago; 1906-1907, Cornell University.
- GOODALE, BEN EDMUND, *Associate Professor of Dairying*.  
B.S., 1922, M.S., 1929, Iowa State College.
- GOODE, JOHN K., *Assistant Professor of Religion*.  
A.B., Richmond College, 1898; Graduate of Crozer Theological Seminary, 1901.
- HARRIS, DAVID NIVIN, *Assistant Professor of Drawing*.  
B.S., Clemson Agricultural College, 1908.
- HENDRICKS, JESSE CODY, *Associate Professor of Physics*.  
B.S., 1925, M.A., 1928, Franklin College; Ph.D., Indiana University, 1930.
- HODGE, WYLIE FORT DUPRE, *Assistant Professor of Architecture*.  
Clemson Agricultural College; New York School of Fine and Applied Arts, 1915-1916, 1920-1921; Further Work, RR. Gallerie di Firenze, Italy, Summer 1931.
- HOLMES, ALESTER GARDEN, *Professor of History*.  
B.S., The Citadel, 1897; Graduate Work, University of Chicago, Summer 1911.
- HOWARD, FRANK JAMES, *Assistant Coach*.  
B.S., University of Alabama, 1931.
- HUFF, LORENZ DITMAR, *Assistant Professor of Physics*.  
A.B., 1927, M.S., 1928, Oklahoma University; Ph.D., California Institute of Technology, 1931.
- HUNTER, HOWARD L., *Associate Professor of Chemistry*.  
B.Chem., 1925, Ph.D., 1928, Cornell University.
- HUNTER, JOSEPH EVERETT, *Associate Professor of Mathematics*.  
B.S., Clemson Agricultural College, 1896; Graduate Work, University of Chicago, Summers 1902, 1904, 1910; University of North Carolina, Summer 1928.
- JOHNSON, WILLIS EDWIN, *Assistant Professor of Agricultural Education*.  
B.S., Mississippi A. and M. College, 1922; Graduate Work, Cornell University, Summer 1931.  
(In charge of Agricultural Education work at Seneca, S. C.)
- JONES, ROBERT MORGAN, *Assistant Coach*.  
B.S., Clemson Agricultural College, 1930.
- KINARD, FRANCIS MARION, *Assistant Professor of English*.  
A.B., Wofford College, 1923; A.M., University of North Carolina, 1929.
- KIRKLEY, FRANCIS EDWARD, *Assistant Professor of Vocational Education*.  
B.S., Clemson Agricultural College, 1929.  
(In charge of Agricultural Education work, Central, S. C.)
- KLUGH, WILLISTON WIGHTMAN, *Associate Professor of Drawing*.  
B.S., Clemson Agricultural College, 1896; Graduate Work, Vanderbilt University, 1898; Cornell University, 1900.
- LAMASTER, JOSEPH PAUL, *Professor of Dairying*.  
B.S., 1913, M.S., 1928, University of Kentucky.

LANE, JOHN DEWEY, *Assistant Professor of English.*

A.B., Newberry College, 1920; M.A., University of Virginia, 1924; Graduate Work, Columbia University, 1923 and 1928-1929.

LEE, RUDOLPH EDWARD, *Professor of Architecture.*

B.S., 1896, M.Arch., 1928, Clemson Agricultural College; Graduate Work, Cornell University; University of Pennsylvania; Zanerian Art School.

LINDSAY, JOSEPH, JR., *Professor of Textile Chemistry and Dyeing.*

A.B., Erskine College, 1919; Graduate Work, University of North Carolina, University of Chicago, and Philadelphia Textile School.

LIPPINCOTT, WILLIAM LEROY, *Professor of Chemistry.*

B.Chem., 1918, Graduate Work, 1920-1921, Cornell University.

MCGINTY, RUPERT ALONZO, *Vice-Director of Agricultural Experiment Station.*

B.S., Alabama Polytechnic Institute, 1913; A.M., Washington University, 1919; Cornell University, 1926-1927.

McKENNA, ARTHUR ERNEST, *Associate Professor of Weaving and Design.*

Graduate Rhode Island School of Design, 1922; Bradford-Durfee Textile School; B.S., Clemson Agricultural College, 1930; M.S., University of Tennessee, 1933.

MACLACHLAN, JOHN DOUGLAS, *Assistant Professor of Botany.*

B.A., Hon., Queen's University, 1931; A.M., 1933, Ph.D., 1935, Harvard University.

MARSHALL, JOHN LOGAN, *Associate Professor of Wood Work.*

Georgia School of Technology; B. S., Clemson Agricultural College, 1909; Bradley Polytechnic Institute, 1919.

MARTIN, SAMUEL MANER, *Professor of Mathematics.*

B.S., The Citadel, 1896; Graduate Work, Cornell University, Summer 1900; Harvard University, Summer 1904; University of Chicago, Summer 1908.

MILLS, WILLIAM HAYNE, *Professor of Rural Sociology.*

A.B., Davidson College, 1892; B.D., Columbia Theological Seminary, 1897.

MITCHELL, JACK HARRIS, *Professor of Chemistry.*

B.S., 1903, M.S., 1904, Alabama Polytechnic Institute; M.S., University of Illinois, 1911.

MONROE, JAMES BEASLEY, *Acting Associate Professor of Vocational Education.*

B.S., Clemson Agricultural College, 1915; M.S., Texas A. & M. College, 1935.

MORGAN, CHARLES LEE, *Professor of Poultry Husbandry.*

B.S., 1918, M.S., 1927, University of Kentucky; Graduate Work, University of Wisconsin, 1931-1932.

MUSSER, ALBERT MYERS, *Professor of Horticulture.*

B.S., University of Florida, 1918; Graduate Work, Michigan State College, 1930, 1933.

NEELY, JESS C., *Head Coach of Intercollegiate Athletics.*

LL.B., Vanderbilt University, 1924.

NEWMAN, CHARLES CARTER, *Professor of Horticulture.*

Alabama Polytechnic Institute; B.S., Clemson Agricultural College.

NUTT, GEORGE B., *Associate Professor of Agricultural Engineering.*

B.S. in Agricultural Engineering, Mississippi State College, 1930; Graduate Work, Iowa State College, Summers 1934, 1937; Training course, International Harvester Company, 1931, 1932.



- PATRICK, CHARNER SCAIFE, *Head Farms Department*.  
B.S., Clemson Agricultural College, 1913; Graduate Work, Iowa State College, winter quarter 1930, summer quarter 1931.
- PETERSON, VERD, *Consulting Professor of Agricultural Education, State Supervisor of Agricultural Education, Columbia, S. C.*
- PHILPOT, CLAUDE PAUL, *Assistant Professor of Forge and Foundry*.  
B.S., Clemson Agricultural College, 1928; Training course, Bethlehem Steel Company, 1928.
- POLLARD, FRANK H., *Professor of Chemistry*.  
B. of Chemistry, 1916, Ph.D., 1922, Cornell University.
- \*QUATTLEBAUM, ALEXANDER MCQUEEN, *Assistant Professor of Civil Engineering*.  
B.S., Clemson Agricultural College, 1934; M.S., Cornell University, 1935.
- RAMSEY, GEORGE L., *Assistant Professor of Military Science and Tactics*.  
Major Infantry, U. S. A.; B.S., Centre College, 1914; Graduate of the Infantry School, Basic Officers Course, 1923; Graduate of the Infantry School, Advanced Course, 1933.
- REED, ALBERT RAYMOND, *Assistant Professor of Physics*.  
A.B., Wofford College, 1925; M.S., University of South Carolina, 1931.
- RHODES, SAM ROSEBOROUGH, *Professor of Electrical Engineering*.  
B.S., 1900, M.S., 1901, Furman University; B.S., 1907, E.E., 1928, Clemson Agricultural College; General Electric Company; Westinghouse Electric and Manufacturing Company.
- RHYNE, ORESTES PEARL, *Professor of Modern Languages*.  
A.B., Lenoir-Rhyne College, 1907; A.B., 1908, A.M., 1909, University of North Carolina; Ph.D., Johns Hopkins University, 1913.
- RICE, MYRON ARTHUR, *Assistant Professor of Botany*.  
B.S., University of California, 1916; M.S. in Agriculture, Cornell University, 1925.
- ROSENKRANS, DUANE B., *Associate Professor of Botany*.  
A.B., Upper Iowa University, 1911; M.A., University of Wisconsin, 1917.
- SAMS, JAMES HAGOOD, JR., *Assistant Professor of Mechanical Engineering*.  
B.S., Clemson Agricultural College, 1924; E.E., Cornell University, 1926; M.S. in Mechanical Engineering, 1931, Ph.D., 1937, University of Michigan.
- SEFICK, HAROLD JOHN, *Acting Associate Horticulturist*.  
B.S., 1935, M.S., 1937, Rutgers University.
- SHANKLIN, AUGUSTUS G., *Professor Emeritus of Mathematics*.  
B.S., The Citadel, 1893; Graduate Work, Cornell University, Summer 1908; Columbia University, Summer 1911.
- SHELDON, DAWSON C., *Associate Professor of Mathematics*.  
B.S., State College of Washington, 1925; M.A., 1927, Ph.D., 1929, University of California.
- SHENK, DONALD H., *Associate Professor of Mechanical Engineering*.  
B.S., M.E., Purdue University, 1924; Graduate Work, Purdue University, 1927-1929; S.P.E.E., Summer School 1929.
- SHERMAN, FRANKLIN, *Professor of Entomology and Zoology*.  
B.S., Agriculture, Cornell University, 1900; M.S., University of Maryland, 1912.
- SLONE, HORACE EVANS, *Assistant Professor of Electrical Engineering*.  
E.E., Syracuse University, 1927; General Electric Company.

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\*In place of J. A. Stevenson, on leave.

- STARKEY, LAWRENCE VINCENT, *Professor of Animal Husbandry*.  
B.S., University of Illinois, 1914; M.S., University of Wisconsin, 1917;  
Graduate Work, University of Wisconsin, 1930.
- \*STEVENSON, JAMES ANNE, *Assistant Professor of Civil Engineering*.  
B.C.E., University of Arkansas, 1925; M.S., Iowa State College, 1927.
- STRIBLING, BRUCE HODGSON, *Associate Professor of Vocational Education*.  
B.S., Clemson Agricultural College, 1918; Graduate Work, George Peabody  
College, Summers 1927, 1929.
- TARRANT, WILLIAM EDWARD, *Assistant Professor of Weaving*.  
B.S., Clemson Agricultural College, 1927; Alabama Polytechnic Institute,  
Summer 1932.
- TATE, HAROLD SIMMONS, *Associate Professor of Vocational Education*.  
B.S., Clemson Agricultural College, 1925; M.A., Columbia University,  
1929; George Peabody College, Summers 1927, 1931, 1932; Pennsylvania  
State College, Summers 1936, 1937.
- TAYLOR, RUPERT, *Associate Professor of English*.  
A.B., 1903, A.M., 1906, University of Arkansas; Ph.D., Columbia Univer-  
sity, 1911.
- TINGLEY, FREEMAN THAYER, *Professor of Electrical Engineering*.  
B.S., 1922, E.E., 1935, Bucknell; M.S., University of Illinois, 1929;  
Course, Westinghouse Company.
- TURNER, BENJAMIN RYAN, *Consulting Professor of Industrial Education*.  
A.B., 1926, M.A., 1931, Wofford College; Clemson College, Summer 1927;  
Graduate Work, University of Cincinnati, 1934-1935 and Summer 1936.
- VEALE, DONALD ERNEST, *Assistant Professor of Religion*.  
Fashotah Theological College, 1920-1923; Graduate in Theology, Sewanee  
Theological Seminary, 1926.
- WALTHOUR, RUSSELL FLEMING, JR., *Assistant Professor of Military Science  
and Tactics, Assistant Commandant*.  
Major, Infantry, U. S. Army; B.S., Alabama Polytechnic Institute, 1916;  
Graduate, The Infantry School, 1922.
- WARD, JAMES EDWARD, JR., *Professor of Economics and Government*.  
B.S., 1929, M.S., 1931, University of Virginia; Graduate Work, Harvard  
University, 1932-1933; Ph.D., University of Virginia, 1935.
- WASHINGTON, WILLIAM HAROLD, *Dean, School of Vocational Education;  
Dean of the Summer School*.  
B.S., Clemson Agricultural College, 1920; M.S., Iowa State College, 1922;  
Graduate Work, Georgia School of Technology, Summer 1925; George  
Peabody College, Summers 1928, 1929; 1932-1933.
- WEEKS, CHARLES WARREN, *Professor of Military Science and Tactics,  
Commandant of Cadets*.  
Colonel, Infantry, U. S. Army; B.S., University of Nebraska, 1898;  
Honor Graduate Command and General Staff School, 1911; Graduate General  
Staff Class, 1912; Graduate Army War College, 1920; Member of  
Initial General Staff List.
- WHITE, THOMAS ARLINGTON, *Professor of Vocational Education*.  
B.S., 1924, M.S., 1929, North Carolina State College; Ph.D., Cornell  
University, 1933.
- WILLIAMS, BARNETT OSBORNE, *Professor of Rural Sociology and Statistics*.  
B.S., Clemson Agricultural College, 1918; M.S., University of Virginia,  
1929; University of Minnesota, 1930-1933.
- WILLIS, HORACE HAROLD, *Dean, School of Textiles*.  
B.S., Clemson Agricultural College, 1917.
- ZURBURG, FREDERICK WILLIAM, *Assistant Professor of Chemistry*.  
B.S., 1927, M.S., 1928, University of North Carolina.

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\*On leave 1937-1938.

## INSTRUCTORS

---

- ALEXANDER, RUFUS CLIFTON, *Vocational Education*.  
B.S., Clemson Agricultural College, 1929; Graduate Work, University of South Carolina, Summer 1930; Cornell University, Summer 1931.
- BELL, MARSHALL CORNETT, *Mathematics*.  
A.B., 1933, M.A., 1936, University of North Carolina.
- BRANCH, JAMES STROTHER, *Engineering*.  
B.S., Clemson Agricultural College, 1936.
- COKER, EDWARD CALEB, JR., *Mathematics*.  
A.B., University of South Carolina, 1928; M.A., University of North Carolina, 1930; Graduate Work, Brown University, 1932; Graduate Work, University of Chicago, Summer 1936.
- \*COOKE, ARTHUR LOUIS, *English*.  
B.A., University of Virginia, 1930; M.A., University of Virginia, 1931; University of Michigan, 1931-1932 and Summer 1935.
- DEAN, JORDAN ARTHUR, *English and French*.  
A.B., Wofford College, 1933; M.A., Vanderbilt University, 1934; University of Illinois, 1937.
- DUBOSE, THEODORE SCOTT, *Assistant in Mechanical Laboratory and Shop*.  
B.S., Clemson Agricultural College, 1934.
- EPTING, CARL LAFAYETTE, *History and Government*.  
A.B., Newberry College, 1921; A.M., University of South Carolina, 1925; Graduate Work, University of South Carolina, 1926, 1928, 1932-1934; University of North Carolina, Summers 1927, 1928.
- GAGE, GASTON, *Acting Instructor, Textile Industry*.  
B.S., Clemson Agricultural College, 1921; Graduate Work, University of North Carolina, Summers 1935, 1936.
- GEE, ROBERT ESTES, *Chemistry*.  
A.B., Newberry College, 1931; M. A., University of North Carolina, 1934.
- HAWKINS, GARY FRED, *Chemistry*.  
B.S., Newberry College, 1935.
- HEATH, HENRY SANFORD, *Military Science and Tactics, Sergeant in Commandant's Office*.  
Sergeant, DEML, Infantry, U. S. Army.
- HELTON, KENNEY RIXIE, *Military Science and Tactics, Sergeant in Commandant's Office*.  
Sergeant, DEML, Infantry, U. S. Army.
- HENRY, NATHANIEL H., *English*.  
A.B., 1929, A.M., 1933, University of North Carolina.
- HICKS, WILLIAM LYLES, *Textile Chemistry and Dyeing*.  
B.S., Clemson Agricultural College, 1931.
- HODGES, BAXTER H., *Chemistry*.  
B.S., Clemson Agricultural College, 1933; Graduate Work, University of North Carolina, Summer 1936.
- HUCKABEE, MARVIN L., *Textile Chemistry and Dyeing*.  
B.S., Clemson Agricultural College, 1933; Graduate Work, University of North Carolina, Summers 1935, 1936, 1937.
- JONES, JOSEPH CROSBY, *Graduate Assistant, Botany and Bacteriology*.  
B.S., Clemson Agricultural College, 1937.

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\*On leave 1937-1938.

- JONES, ROBERT HENRY, *Agricultural Engineering*.  
B.S. in Agricultural Engineering, Mississippi State College, 1935; Graduate Work, Virginia Polytechnic Institute, Summer 1936.
- KELLY, LOUIS GRANT, *Mathematics*.  
B.S., Clemson Agricultural College, 1937.
- KIRCHNER, GEORGE FREDERICK, *Vocational Education*.  
B.S., Clemson Agricultural College, 1933; Graduate Work, Y. M. C. A. Graduate School, 1933; Springfield College, Summer 1934; Louisiana State University, Summers 1936, 1937.
- KIRKWOOD, CHARLES EDWARD, JR., *Mathematics and Physics*.  
A.B., Lynchburg College, 1935; M.S., University of Georgia, 1937.
- LAGRONE, JOHN WALLACE, *Mathematics*.  
B.S., Clemson Agricultural College, 1932; M.A., Vanderbilt University, 1934.
- LIPSCOMB, RALPH WALDO, *Agronomy*.  
B.S., Clemson Agricultural College, 1928; M.S., Michigan State College, 1930.
- LUCAS, JOHN PAUL, JR., *English*.  
A.B., Duke University, 1930; M.S., State College of University of North Carolina, 1931; A.M., Princeton University, 1933; Graduate Work, Princeton University, 1931-1932, 1932-1933.
- MCALISTER, HAROLD JESSE, *Graduate Assistant, Botany and Bacteriology*.  
B.S., Clemson Agricultural College, 1934.
- MARSHALL, RALPH GERALD, *Military Science and Tactics, Sergeant in Commandant's Office*.  
Sergeant, DEML, Infantry, U. S. Army.
- NICHOLS, GORDON MCGLOHON, *Graduate Assistant, Chemistry*.  
B.S., Clemson Agricultural College, 1937.
- \*RAY, JAMES KENDALL, *Acting Instructor, English*.  
A.B., Ohio University, 1927; M.A., University of Michigan, 1933; Graduate Work, Ohio University, 1931-1932.
- RITCHIE, ROBERT RUSSELL, *Animal Husbandry*.  
B.S., Iowa State College, 1926.
- SALLEY, JAMES RAWORTH, JR., *Graduate Assistant, Chemistry*.  
B.S., College of Charleston, 1937.
- SHIGLEY, JOSEPH EDWARD, *Mechanical Engineering*.  
B.S. in E.E., 1931, B.S. in M.E., 1932, Purdue University.
- TRAWICK, BUCKNER BEASLEY, *English*.  
A.B., Emory University, 1935; A.M., Harvard University, 1936; Graduate Work, Harvard University, 1936-1937.
- VANDIVERE, EDGAR, *Physics*.  
A.B., Emory University, 1934; M.A., Duke University, 1935.
- WALKER, R. CASPER, *History and Government*.  
A.B., 1935, M.A., 1937, Emory University.
- WALTERS, JOHN VERNON, *Textiles*.  
B.S., Clemson Agricultural College, 1933.
- WARE, ROBERT EDWARD, *Zoology and Entomology*.  
B.S., Iowa Wesleyan College, 1929; Graduate Work, Iowa State College, Summers 1931, 1932.
- WHEELER, CYRIL KEISTER, *Graduate Assistant, Chemistry*.  
B.S., Newberry College, 1937.
- WILKINSON, HARRY JOHN, *Military Science and Tactics, Sergeant Major in Commandant's Office*.  
Sergeant, DEML, Infantry, U. S. Army.

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\*In place of A. L. Cooke, on leave.



# STANDING COMMITTEES OF THE FACULTY

## 1937-1938

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The President is *ex officio* a member of all committees.

### ADMISSIONS:

Daniel, *Chairman*; Calhoun, Cooper, Holmes, Martin, Metz.

### ADVANCED COURSES:

Brown, Cooper, Hunter, H. L., Sams, White, Registrar, *ex officio*.

### ASSEMBLIES AND LECTURES:

Daniel, *Chairman*; Bradley, Crouch, Earle, Freeman, Lippincott.

### ATHLETICS:

Milford, *Chairman*; Gage, Mitchell, Rhodes, Watkins, J. C. Littlejohn, Business Manager, *ex officio*; G. E. Metz, Registrar, *ex officio*.

### AWARDS AND HONORS:

Daniel, *Chairman*; Armstrong, Carodemos, Curtis, McKenna, Monroe.

### CATALOG:

President Sikes, *Chairman*; Brearley, Littlejohn, Metz, Washington.

### DAY AND SPECIAL STUDENTS:

Metz, *Chairman*; Holtzendorff, Littlejohn, The Commandant.

### DEFICIENT STUDENTS:

Kinard, *Chairman*; Burton, Hunter, J. E., Brown, Goodale, Pollard.

### FACULTY PROGRAM:

Goodale, *Chairman*; Brown, Rosenkrans, Ward, Sams, MacLachlan, Hunter, H. L.

### LIBRARY:

The Librarian, *Chairman*; Calhoun, Lee, R. E., Holmes, Lane, Mills, Rhyne.

### REEXAMINATION AND PROMOTION:

Metz, *Chairman*; Aull, W. B., Calhoun, Daniel, Earle, Kinard, Mitchell, Martin, Tate, Willis.

### SCHEDULE:

Metz, *Chairman*; Aull, Eaton, Dumas, Wilkinson, Kinard, Pollard, Rhodes, Tate.

### SECONDARY SCHOOLS RELATIONS:

Metz, *Chairman*; Booker, Kinard, Marshall, Sherman, Washington.

### STUDENT LOANS:

Littlejohn, *Chairman*; Evans, Woodward.

### STUDENT ORGANIZATIONS:

Eaton, *Chairman*; Calhoun, Collings, Freeman, Marshall, Taylor.

### STUDENT PUBLICATIONS:

Lane, *Chairman*; Littlejohn, Sherman, J. E.

### UNIFORM:

Littlejohn, *Chairman*; Douthit (Trustee-Member), Eaton, Evans, The Commandant.

### VISITORS:

Woodward, *Chairman*; Littlejohn, Metz, The Commandant.

## OTHER OFFICERS

---

|                                                         |                                               |
|---------------------------------------------------------|-----------------------------------------------|
| JACOB HENRY WOODWARD                                    | <i>Assistant to the President</i>             |
| VIRGINIA EARLE SHANKLIN                                 | <i>Secretary to the President</i>             |
| *CLAUDE AUGUSTUS SEAWRIGHT, B.S.                        | <i>Assistant Registrar</i>                    |
| JOHN WALLACE LAGRONE, B.S., M.A.                        | <i>Acting Assistant Registrar</i>             |
| JEAN BEVERLEY SLOAN                                     | <i>Assistant to the Registrar</i>             |
| LUCIA TAYLOR HUDGENS, A.B.                              | <i>Stenographer Registrar's Office</i>        |
| BRANTLEY LEAVELL JOHNSTONE, A.B.                        | <i>Stenographer Registrar's Office</i>        |
| MARY CONRAD STEVENSON, A.B.                             | <i>Assistant Librarian</i>                    |
| JANE LLEWELLYN MCDANIEL, A.B., A.B. in L.S.             | <i>Assistant to the Librarian</i>             |
| ANTOINETTE HARRISON EARLE, A.B.                         | <i>Assistant to the Librarian</i>             |
| JOSEPH EDGAR SHERMAN, B.S.                              | <i>Athletic Publicity Director</i>            |
| MARY LEIGHTON MILLS RITCHIE, B.S.                       | <i>Assistant to the Business Manager</i>      |
| MARY FRANCIS MATTISON                                   | <i>Stenographer Business Manager's Office</i> |
| EDWARD BERNARD ELMORE                                   | <i>Bookkeeper</i>                             |
| BOYCE B. BURLEY                                         | <i>Bookkeeper</i>                             |
| ANDREW JOSEPH BROWN                                     | <i>Assistant Bookkeeper</i>                   |
| HAROLD D. COCHRAN                                       | <i>Clerk, Treasurer's Office</i>              |
| HELEN MORRISON                                          | <i>Assistant to Treasurer</i>                 |
| OSCAR ALLEN SHUBERT, Warrant Officer, U. S. A., Retired | <i>Quartermaster</i>                          |
| **HARLEY WEST, Master Sergeant, U. S. A., Retired       | <i>Quartermaster</i>                          |
| IRENE JULIAN, R.N.                                      | <i>Head Nurse</i>                             |
| MYRTLE DEAN                                             | <i>X-Ray and Laboratory Technician</i>        |
| JOSEPH M. GLASCOCK, R.N.                                | <i>Assistant Nurse</i>                        |
| GLADYS MITCHELL, R.N.                                   | <i>Assistant Nurse</i>                        |
| DAVID J. WATSON, B.S.                                   | <i>Supt. of Campus, Roads and Buildings</i>   |
| JAMES DOUGLAS HARCOMBE                                  | <i>Mess Officer</i>                           |
| RUDOLPH E. LEE, A.I.A.                                  | <i>College Architect</i>                      |
| PRESTON BROOKS HOLTZENDORFF, JR., LL.B.                 | <i>General Secretary, Y. M. C. A.</i>         |
| JOHN ROY COOPER, B.S.                                   | <i>Associate Secretary, Y. M. C. A.</i>       |
| JOHN K. GOODE, A.B.                                     | <i>Pastor Baptist Church</i>                  |
| DONALD E. VEALE                                         | <i>Rector Episcopal Church</i>                |
| SYDNEY J. L. CROUCH, B.D., Th.D.                        | <i>Pastor Presbyterian Church</i>             |
| HERBERT OTTO CHAMBERS                                   | <i>Pastor Methodist Church</i>                |
| HENRY L. SPIESMAN                                       | <i>Pastor St. Andrews Catholic Church</i>     |

---

\*On leave.

\*\*Deceased.

# AGRICULTURAL EXPERIMENT STATION STAFF

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## BOARD OF CONTROL

---

HON. SAM H. SHERARD, Ninety Six, S. C.  
HON. W. W. BRADLEY, Columbia, S. C., *Ex Officio*.  
HON. T. B. YOUNG, Florence, S. C.  
HON. CHRISTIE BENET, Columbia, S. C.  
HON. A. F. LEVER, Columbia, S. C.  
HON. PAUL SANDERS, Ritter, S. C.  
HON. F. E. COPE, Cope, S. C.  
HON. R. M. COOPER, Columbia, S. C.

---

E. W. SIKES, PH.D., LL.D., *President*; H. P. COOPER, PH.D., *Director*  
R. A. MCGINTY, A.M., *Vice-Director*

---

## AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY,

G. H. Aull, Ph.D., Agricultural Economist.  
B. O. Williams, M.S., Rural Sociologist.  
W. T. Ferrier, M.S., Associate Agricultural Economist.  
\*J. L. Fulmer, M.S., Assistant Agricultural Economist.  
Ernest Riley, B.S., Assistant Agricultural Economist.  
\*\*M. H. Sutherland, B.S., Assistant Agricultural Economist.  
\*\*H. A. White, B.S., Assistant Agricultural Economist.

## AGRONOMY,

H. P. Cooper, Ph.D., Agronomist.  
G. B. Killinger, Ph.D., Associate Soil Scientist.  
Frank Moser, Ph.D., Associate Agronomist.  
W. R. Paden, Ph.D., Associate Agronomist.  
R. L. Smith, M.S., Assistant Agronomist.  
R. H. Jones, B.S., Assistant in Agricultural Engineering.

## ANIMAL HUSBANDRY,

L. V. Starkey, M.S., Animal Husbandman.  
E. G. Godbey, B.S., Associate Animal Husbandman.  
G. W. Anderson, D.V.M., M.S., Associate Animal Pathologist.

## BOTANY AND BACTERIOLOGY,

G. M. Armstrong, Ph.D., Botanist and Plant Pathologist.  
W. B. Aull, B.S., Associate Bacteriologist.  
C. H. Arndt, Ph.D., Associate Botanist and Plant Pathologist.  
C. J. Nusbaum, Ph.D., Assistant Plant Pathologist.  
C. C. Bennett, B.S., Laboratory Assistant.  
A. J. Ullstrup, Ph.D., Agent (U. S. Bureau of Plant Industry).  
W. J. Hanna, B.S., Agent Bureau of Plant Industry.  
B. S. Hawkins, B. S., Agent (U. S. Bureau of Plant Industry).  
N. A. Schappelle, Ph.D., Associate Plant Physiologist.  
W. B. Keller, B.S., Agent (U. S. Bureau of Plant Industry).  
J. F. Gilreath, B.S., Agent (U. S. Bureau of Plant Industry).

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\*On leave 1937-1938.

\*\*In Cooperation with Bureau of Agricultural Economics, U. S. D. A.

## CHEMISTRY,

J. H. Mitchell, M.S., Chemist.  
D. B. Roderick, B.A., Assistant Chemist.

## CROP PEST COMMISSION,

G. M. Armstrong, Ph.D., State Pathologist.  
Franklin Sherman, M.S., State Entomologist.  
J. A. Berly, B.S., Assistant State Entomologist.  
M. B. Stevenson, B.S., Assistant State Pathologist.

## DAIRY,

J. P. LaMaster, M.S., Dairyman.  
G. H. Wise, Ph.D., Associate Dairyman.  
R. L. Steer, B.S., Assistant in Dairying.

## ENTOMOLOGY,

Franklin Sherman, M.S., Entomologist.  
O. L. Cartwright, M.S., Associate Entomologist.  
J. G. Watts, M.S., Assistant Entomologist.  
J. N. Todd, M.S., Assistant in Entomology.

## HOME ECONOMICS,

Ada M. Moser, M.A., Home Economist in Charge.  
Mary E. Frayser, M.A., Home Economist.

## HORTICULTURE,

A. M. Musser, B.S., Horticulturist.  
J. B. Edmond, Ph.D., Associate Horticulturist.  
\*F. S. Andrews, M.S., Associate Horticulturist.

## FARMS,

C. S. Patrick, B.S., Head Farms Department.

## POULTRY,

C. L. Morgan, M.S., Poultryman.  
R. C. Ringrose, Ph.D., Assistant Poultryman.

## PUBLICATIONS,

A. B. Bryan, B.Litt., Agricultural Editor.  
W. C. Breazeale, B.S., Bulletin Clerk.

## VETERINARY,

R. O. Feeley, D.V.S., Veterinarian.

## COAST STATION, Summerville, S. C.

E. D. Kyzer, B.S., Superintendent.  
R. L. Jones, B.S., Agent (U. S. Bureau of Animal Industry).

## PEE DEE STATION, Florence, S. C.

E. E. Hall, M.S., Superintendent.  
\*W. B. Albert, Ph.D., Associate Plant Physiologist.  
W. H. Jenkins, B.S., Associate Agronomist (U. S. Bureau of Plant Industry).  
W. M. Lunn, M.S., Associate Agronomist (U. S. Bureau of Plant Industry).  
F. F. Bondy, B.S., Assistant Entomologist (U. S. Bureau of Entomology).  
C. F. Rainwater, B.S., Assistant Entomologist (U. S. Bureau of Entomology).

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\*On leave 1937-1938.



Norman Allen, M.S., Assistant Entomologist (U. S. Bureau of Entomology).

Frank Harrell, Research Assistant.

J. D. McCown, Agent (Bureau of Plant Industry).

SANDHILL STATION, R. 5, Columbia, S. C.

J. A. Riley, M.S., Superintendent.

L. E. Scott, M.S., Assistant Horticulturist.

R. W. Wallace, B.S., Assistant Agronomist.

Nelson McKaig, M.S., Associate Soil Technologist (U. S. Bureau of Plant Industry).

E. W. Faires, B.S., Agent (U. S. Bureau of Dairying).

E. M. Roller, Ph.D., Assistant Chemist (U. S. Bureau of Plant Industry).

W. A. Carns, Agent (U. S. Bureau of Plant Industry).

TRUCK EXPERIMENT STATION, Post Office Box 337, Charleston, S. C.

W. C. Barnes, Ph.D., Acting Superintendent.

J. M. Jenkins, M.S., Assistant Horticulturist.

J. J. Mikell, B.S., Assistant Pathologist.

W. J. Reid, Jr., B.S., Assistant Entomologist (U. S. Bureau of Entomology).

C. O. Bare, M.A., Assistant Entomologist (U. S. Bureau of Entomology).

EDISTO EXPERIMENT STATION, Blackville, S. C.

W. B. Rogers, B.S., Superintendent.

# FERTILIZER INSPECTION AND ANALYSIS

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## Fertilizer Board of Control

F. E. COPE, *Chairman*  
W. D. BARNETT  
J. B. DOUTHIT, JR.

PAUL SANDERS  
S. H. SHERARD

---

B. D. CLOANINGER, *Head of Department*  
B. F. ROBERTSON, *Chief Chemist*  
J. T. FOY, *Assistant Chemist*  
BENJAMIN FREEMAN, *Assistant Chemist*  
C. H. HOLLIS, *Assistant Chemist*  
E. E. LESLIE, *Assistant Chemist*

---

## LIVESTOCK SANITARY WORK STAFF COLUMBIA, S. C.

W. K. LEWIS, V.S., M.D.V., *State Veterinarian and Director*  
*Assistant State Veterinarians*

### Assistant State Veterinarians

R. A. MAYS, B.Sc., D.V.M.  
JACK SCOTT, D.V.M.  
E. T. FISHER, D.V.M.  
F. K. PETERSON, D.V.M.  
W. R. CHASTAIN, D.V.M.

J. G. MCKEE, D.V.M.  
H. B. HOOD, V.M.D.  
S. M. WITHERSPOON, B.Sc., D.V.M.  
I. R. COOPER, D.V.M.  
R. L. WILLIS, D.V.M.

### Deputy State Veterinarians

N. J. Ayers, D.V.M.-----Greer  
W. A. Barnette,  
B.Sc., D.V.M.-----Greenwood  
M. R. Blackstock,  
D.V.S. -----Spartanburg  
T. L. Burriss, D.V.M.---Anderson  
F. P. Caughman, Sr.,  
B.Sc., V.M.D.-----Columbia  
J. T. Dickson, D.V.M.---Rock Hill  
H. L. Frieze, D.V.M.-----Gaffney  
H. W. Graves, D.V.M.-----Union  
C. C. Harmon,  
B.Sc., D.V.M.-----Columbia  
Carlos Helms, D.V.M.---Darlington  
L. J. Hogan, D.V.M.---Charleston  
O'Neal Jacobs, D.V.M.---Laurens  
T. J. Kinard, D.V.M.---Ninety Six  
Don O. Kitchen, D.V.M.---Greenville  
F. E. Kitchen, D.V.M.---Greenville  
G. R. Kitchen, D.V.M.---Sumter

G. J. Lawhon,  
B.Sc., D.V.M.-----Hartsville  
J. S. Lide, D.V.M.-----Newberry  
W. D. McCormack,  
D.V.M. -----Conway  
B. C. McLean, V.M.D.-----Aiken  
W. K. Magill,  
B.Sc., D.V.M.-----Chester  
A. S. Moore, D.V.M.---Walterboro  
J. H. Moore, D.V.M.---Charleston  
J. H. Morse, V.M.D.-----Sumter  
B. K. McInnes,  
M.D., V.M.D.-----Charleston  
R. R. Salley, D.V.M.---Orangeburg  
R. O. Suddath,  
B.S.A., V.M.D. -----Walhalla  
B. C. Talley,  
B.Sc., D.V.M.-----Bennettsville  
E. R. VanDeGrift, Jr.,  
D.V.M. -----Columbia

## AGRICULTURAL EXTENSION STAFF

---

E. W. SIKES, M.A., Ph.D., *President*  
D. W. WATKINS, B.S., M.A., *Director*  
THOS. W. MORGAN, B.S., *Assistant to Director*  
C. M. HALL, *Chief Clerk and Accountant*

### AGRICULTURAL PUBLICATIONS,

Agricultural Editor, A. B. Bryan, B.S., B.Litt., Clemson, S. C.  
Field Information Specialist, J. D. Wooten, Clemson, S. C.

### AGRONOMY DIVISION,

Specialist in Charge Extension Work, R. W. Hamilton, B.S., Clemson, S. C.

Tobacco Specialist, H. A. McGee, Florence, S. C.

Assistant Agronomist, B. E. G. Prichard, B.S., Clemson, S. C.

### AGRICULTURAL ECONOMICS DIVISION,

Leader in Extension Economics, O. M. Clark, B.S., M.S., Clemson, S. C.

Farm Management Specialist, M. C. Rochester, B.S., M.S., Clemson, S. C.

Assistant Farm Management Specialist, W. L. Abernathy, B.S., Clemson, S. C.

Assistant Farm Management Specialist, P. S. Williamon, B.S., Clemson, S. C.

### AGRICULTURAL ENGINEERING,

Extension Agricultural Engineer, C. V. Phagan, B.S., Clemson, S. C.

### ANIMAL HUSBANDRY DIVISION,

Leader in Livestock Extension, J. R. Hawkins, B.S., M.S., Columbia, S. C.

Livestock Specialist, A. L. DuRant, B.S., M.S., Florence, S. C.

### DAIRY DIVISION,

Specialist in Charge Extension Work, C. G. Cushman, B.S., Clemson, S. C.

Dairy Specialist, T. F. Cooley, B.S., Clemson, S. C.

### ENTOMOLOGY DIVISION,

Bee Specialist, E. S. Prevost, Clemson, S. C.

Extension Entomologist, W. C. Nettles, B.S., M.S., Clemson, S. C.

### HORTICULTURAL DIVISION,

Extension Horticulturist in Charge, E. H. Rawl, B.S., M.S., Clemson, S. C.

Extension Horticulturist, A. E. Schilletter, B.S., Clemson, S. C.

### MARKETING DIVISION,

Chief, Division of Marketing, Geo. E. Prince, B.S., Box 1463, Columbia, S. C.

Agent in Marketing, T. A. Cole, B.S., Box 1463, Columbia, S. C.

Specialist Grading and Packing, E. H. Talbert, B.S., Box 1463, Columbia, S. C.

### POULTRY DIVISION,

Poultry Husbandman, P. H. Gooding, B.S., M.S., Clemson, S. C.

### BOYS' STATE CLUB WORK,

State Boys' Club Agent, I. D. Lewis, B.S., M.S., Clemson, S. C.

Assistant State Boys' Club Agent, L. O. Clayton, B.S., Clemson, S. C.

### TERRACING SPECIALIST, E. C. Turner, B.S., Clemson, S. C.

## DISTRICT AGENTS

|                 |                        |             |
|-----------------|------------------------|-------------|
| FIRST DISTRICT  | A. A. McKeown, B.S.    | Spartanburg |
| SECOND DISTRICT | A. H. Ward, B.S., M.S. | Aiken       |
| THIRD DISTRICT  | J. T. Lazar, B.S.      | Florence    |

## COUNTY AGRICULTURAL AGENTS

| <i>County</i> | <i>Name</i>               | <i>Post Office</i> |
|---------------|---------------------------|--------------------|
| Abbeville     | Z. D. Robertson, A.B.     | Abbeville          |
| Aiken         | H. A. Woodle, B.S.        | Aiken              |
| Allendale     | W. H. Pressly, B.S.       | Allendale          |
| Anderson      | E. P. Josey, B.S.         | Anderson           |
| Bamberg       | W. H. Craven, B.S.        | Bamberg            |
| Barnwell      | H. G. Boyleston, B.S.     | Barnwell           |
| Beaufort      | T. H. Seabrook, B.S.      | Beaufort           |
| Berkeley      | J. H. Harvey, B.S.        | Moncks Corner      |
| Calhoun       | Colin McLaurin, B.S.      | St. Matthews       |
| Charleston    | C. W. Carraway, B.S.      | Charleston         |
| Cherokee      | S. C. Stribling, B.S.     | Gaffney            |
| Chester       | M. C. Crain, B.S.         | Chester            |
| Chesterfield  | W. J. Tiller              | Chesterfield       |
| Clarendon     | F. M. Rast, B.S., M.S.    | Manning            |
| Colleton      | L. W. Alford, B.S.        | Walterboro         |
| Darlington    | J. M. Napier, B.S., M.S.  | Hartsville         |
| Dillon        | S. W. Epps, B.S.          | Dillon             |
| Dorchester    | G. C. Meares, B.S.        | St. George         |
| Edgefield     | J. F. Jones, B.S.         | Edgefield          |
| Fairfield     | R. H. Lemmon, B.S.        | Winnsboro          |
| Florence      | J. W. McLendon, B.S.      | Florence           |
| Georgetown    | M. M. McCord, B.S.        | Georgetown         |
| Greenville    | W. R. Gray, B.S.          | Greenville         |
| Greenwood     | R. D. Steer, B.S.         | Greenwood          |
| Hampton       | J. C. Anthony, B.S.       | Hampton            |
| Horry         | V. M. Johnston, B.S.      | Conway             |
| Jasper        | J. P. Graham, B.S.        | Ridgeland          |
| Kershaw       | W. C. McCarley, B.S.      | Camden             |
| Lancaster     | F. W. Cannon, B.S.        | Lancaster          |
| Laurens       | C. B. Cannon, B.S.        | Laurens            |
| Lee           | T. M. Cathcart, B.S.      | Bishopville        |
| Lexington     | R. R. Mellette, B.S.      | Lexington          |
| Marion        | W. R. Wells, Jr., B.S.    | Marion             |
| Marlboro      | W. D. Wood, B.S.          | Bennettsville      |
| McCormick     | R. D. Suber, B.S.         | McCormick          |
| Newberry      | P. B. Ezell, B.S.         | Newberry           |
| Oconee        | G. H. Griffin, B.S.       | Walhalla           |
| Orangeburg    | L. B. Massey, B.S.        | Orangeburg         |
| Pickens       | T. A. Bowen               | Pickens            |
| Richland      | D. R. Hopkins, B.S.       | Columbia           |
| Saluda        | Claude Rothell, B.S.      | Saluda             |
| Spartanburg   | W. H. Stallworth, B.S.    | Spartanburg        |
| Sumter        | T. O. Bowen, B.S., Acting | Sumter             |
| Union         | T. B. Lee, B.S.           | Union              |
| Williamsburg  | R. A. Jackson, B.S.       | Kingstree          |
| York          | L. W. Johnson, B.S.       | Rock Hill          |



## ASSISTANT COUNTY AGRICULTURAL AGENTS

---

| <i>County</i>      | <i>Name</i>                 | <i>Post Office</i> |
|--------------------|-----------------------------|--------------------|
| Aiken -----        | D. A. Shelly, B.S.-----     | Aiken              |
| Anderson -----     | M. A. Bouknight, B.S.-----  | Anderson           |
| Barnwell -----     | H. A. Bowers, B.S.-----     | Barnwell           |
| Charleston -----   | J. E. Youngblood, B.S.----- | Charleston         |
| Chesterfield ----- | J. C. Willis, B.S.-----     | Chesterfield       |
| Greenville -----   | J. D. Miller, B.S.-----     | Greenville         |
| Horry -----        | J. C. McComb, B.S.-----     | Conway             |
| Newberry -----     | J. L. King, B.S.-----       | Newberry           |
| Orangeburg -----   | E. C. Abrams, B.S.-----     | Orangeburg         |
| Richland -----     | Romaine Smith, B.S.-----    | Columbia           |
| Spartanburg -----  | W. J. Martin, B.S.-----     | Spartanburg        |
| Sumter -----       | J. W. Talbert, B.S.-----    | Sumter             |
| Williamsburg ----- | J. M. Lewis, B.S.-----      | Kingstree          |
| York -----         | B. J. Funderburk, B.S.----- | Rock Hill          |

## NEGRO AGRICULTURAL AGENTS

---

H. E. Daniels, District Agent, State College, Orangeburg.

| <i>County</i>      | <i>Name</i>             | <i>Post Office</i> |
|--------------------|-------------------------|--------------------|
| Aiken -----        | G. T. Dowdy-----        | Aiken              |
| Anderson -----     | J. A. Gresham-----      | Anderson           |
| Bamberg -----      | J. D. Marshall-----     | Bamberg            |
| Beaufort -----     | Benjamin Barnwell ----- | Frogmore           |
| Chester -----      | Waymon Johnson -----    | Chester            |
| Clarendon -----    | Wm. Thompson -----      | Manning            |
| Colleton -----     | H. C. Miller-----       | Walterboro         |
| Darlington -----   | S. C. Disher-----       | Darlington         |
| Florence -----     | H. S. Person-----       | Florence           |
| Greenville -----   | Booker T. Miller-----   | Greenville         |
| Greenwood -----    | L. V. Walker-----       | Greenwood          |
| Orangeburg -----   | G. W. Daniels-----      | Orangeburg         |
| Richland -----     | J. E. Dickson-----      | Columbia           |
| Spartanburg -----  | W. C. Bunch-----        | Spartanburg        |
| Sumter -----       | Jason Maloney -----     | Sumter             |
| Union -----        | E. N. Williams-----     | Union              |
| Williamsburg ----- | Van Buren Thomas-----   | Kingstree          |

Note: All negro agents have B.S. Degrees from State College at Orangeburg, or the equivalent from other institutions.

# HOME DEMONSTRATION EXTENSION DEPARTMENT

The United States Department of Agriculture, Clemson College  
and Winthrop College working in cooperation

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|                                      |                                               |
|--------------------------------------|-----------------------------------------------|
| Lonny I. Landrum, B.S.               | State Home Demonstration Agent                |
| Harriette B. Layton                  | Assistant State Home Demonstration Agent      |
| Theodosia Dargan Plowden             | District Agent                                |
| Bessie Harper, B.A.                  | District Agent                                |
| Juanita Neely, B.A., M.S.            | District Agent                                |
| Dora Dee Walker, B.A.                | Conservation and Production Specialist        |
| Hariett F. Johnson, B.A., B.S., M.A. | State Girls' Club Agent                       |
| Myra Reagan                          | Specialist in Nutrition and Child Development |
| Jane Ketchen                         | Marketing Specialist                          |
| Elizabeth Watson, B.S.               | Clothing Specialist                           |
| Eleanor Carson, B.A.                 | Poultry Specialist                            |
| Portia Seabrook, B.A.                | Home Management Specialist                    |
| Ammie Felder                         | Secretary                                     |

## COUNTY HOME DEMONSTRATION AGENTS

| <i>County</i> | <i>Name</i>                        | <i>Address</i> |
|---------------|------------------------------------|----------------|
| Abbeville     | Elizabeth Herbert, A.B.            | Abbeville      |
| Aiken         | Ann Elizabeth Monroe, B.S.         | Aiken          |
| Allendale     | Mamie Sue Hicks, B.S.              | Allendale      |
| Anderson      | Ella Burton, B.S.                  | Anderson       |
| Bamberg       | Marie Lambert, B.S.                | Bamberg        |
| Barnwell      | Elizabeth McNab, A.B.              | Barnwell       |
| Beaufort      | Mary Ellen Eaves, A.B., B.S.       | Beaufort       |
| Berkeley      | Laura Connor, B.S.                 | Moncks Corner  |
| Calhoun       | Lula Chriesman                     | St. Matthews   |
| Charleston    | Caroline S. Alston                 | Charleston     |
| Cherokee      | Elizabeth Williams, B.S.           | Gaffney        |
| Chester       | John'gy Richards, B.S.             | Chester        |
| Chesterfield  | Kerby Tyler                        | Chesterfield   |
| Clarendon     | Carrie Carson, B.S.                | Manning        |
| Colleton      | Isobel Patterson, B.S.             | Walterboro     |
| Darlington    | Mrs. Emma J. Evans                 | Darlington     |
| Dillon        | Etta Sue Sellers, B.A.             | Dillon         |
| Dorchester    | Ophelia Barker, B.S.               | St. George     |
| Edgefield     | Laura Mellette, B.S.               | Edgefield      |
| Fairfield     | Susan Pender, B.S.                 | Winnsboro      |
| Florence      | Anne Moss Moore, B.S.              | Florence       |
| Florence      | Margaret Long, B.S. (Asst. Agent)  | Lake City      |
| Georgetown    | Vela Smith, B.S.                   | Georgetown     |
| Greenville    | Julia Stebbins                     | Greenville     |
| Greenville    | Eloise Johnson, B.S. (Asst. Agent) | Greenville     |
| Greenwood     | Carolyn Avinger, B.S.              | Greenwood      |
| Hampton       | Ozora Miley                        | Hampton        |
| Horry         | Margaret Cloud                     | Conway         |
| Jasper        | Gertrude Lanham, B.S.              | Ridgeland      |
| Kershaw       | Margaret Fewell, B.A.              | Camden         |

|              |                                    |               |
|--------------|------------------------------------|---------------|
| Lancaster    | Jennie Robinson, B.S.              | Lancaster     |
| Laurens      | Jennie E. Coleman                  | Laurens       |
| Lee          | Sallie Pearce                      | Bishopville   |
| Lexington    | Mattie Lee Cooley, A.B., B.S.      | Lexington     |
| McCormick    | Matilda Bell, B.S.                 | McCormick     |
| Marion       | Hazel Smith, B.S.                  | Marion        |
| Marlboro     | Janie McDill, B.A., B.S.           | Bennettsville |
| Newberry     | Ethel Counts, B.A.                 | Newberry      |
| Oconee       | Mary C. Haynie, B.A.               | Walhalla      |
| Orangeburg   | Louise Fleming                     | Orangeburg    |
| Orangeburg   | Huldah Pearson, B.S. (Asst. Agent) | Orangeburg    |
| Pickens      | Sarah G. Cureton, B.S.             | Pickens       |
| Richland     | Winnie Belle Holden, B.A.          | Columbia      |
| Saluda       | Pearl Calvert                      | Saluda        |
| Spartanburg  | Kate M. Hooper                     | Spartanburg   |
| Sumter       | Jean Reid, B.S.                    | Sumter        |
| Union        | Mahala J. Smith                    | Union         |
| Williamsburg | Mrs. Elizabeth D. Boykin, A.B.     | Kingstree     |
| York         | Margaret Martin, B.S.              | Rock Hill     |

## NEGRO HOME DEMONSTRATION AGENTS

Marian B. Paul, State Supervisor Negro Home Demonstration Work,  
State College, Orangeburg, S. C.

| <i>County</i> | <i>Name</i>            | <i>Address</i> |
|---------------|------------------------|----------------|
| Aiken         | Matred McKissick       | Aiken          |
| Allendale     | Rosa Reed              | Allendale      |
| Beaufort      | Willie Mabel Price     | Frogmore       |
| Charleston    | Albertha DeVaux        | Charleston     |
| Dorchester    | Mattie E. Overstreet   | St. George     |
| Florence      | Lillian Brown          | Florence       |
| Georgetown    | Rosa G. Gadsden        | Georgetown     |
| Greenville    | Delphenia Wilkinson    | Greenville     |
| Marlboro      | Minnie Gandy           | Clio           |
| Newberry      | Laura Manney           | Newberry       |
| Orangeburg    | Marie Blakemon         | Orangeburg     |
| Richland      | Mrs. Francis Thomas    | Columbia       |
| Spartanburg   | Ethel Taggart          | Spartanburg    |
| Sumter        | Ophelia Williams       | Sumter         |
| Richland      | Gladys Daniels (Asst.) | Columbia       |

Note: All negro Home Demonstration Agents have had college training in home economics.

## PART II—INFORMATION

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### REQUIREMENTS FOR ADMISSION

*General.* All applicants for admission to Clemson College must be at least sixteen years of age and at the time of entrance must be free from contagious or infectious disease. A certificate of good moral character and honorable discharge from the last school attended is required.

*Application Blanks.* Blanks to be used in applying for admission may be obtained from the Registrar, Clemson College, Clemson, South Carolina.

*Admission by Certificate.* Graduates from accredited high schools who have completed at least fifteen standard high-school units, including three units in English, two and one-half in mathematics, and one in history, are admitted to the freshman class without examination. A complete statement of the applicant's high-school record must be submitted by the high-school principal on the regular application blank. If he has attended another college, a transcript of that record and a statement of honorable discharge must be submitted.

*Admission by Examination.* Students who do not meet the requirements given above may be admitted to the college by passing the entrance examinations. For the dates of these examinations see the college calendar.

*Admission by Certificate and Examination.* Applicants who are not graduates of accredited high schools, but who can give acceptable documentary evidence of having completed the equivalent of at least fifteen units of work under formal instruction, will be required to pass examinations on English, mathematics, history, and one other subject selected by the Registrar. These examinations are held at the same time as the regular entrance examinations.



*Admission to Advanced Standing.* Work that has been taken in other colleges will be credited for an equivalent amount of work so far as it applies to any course offered in the College. The applicant must present: (a) a letter of honorable dismissal from the institution last attended, and (b) an official transcript of his record, including entrance credits. College credits given by transfer are provisional and may be cancelled at any time if the student's work is unsatisfactory. A student coming from another institution must spend at least one regular session in the College before he is eligible to apply for a degree.

*Matriculation.* Students upon arrival at the College at the opening of the session must report at once to the Registrar's Office. New students will be directed in the procedure necessary to complete their enrollment. A student's matriculation with the College is equivalent to his pledge to conform to the rules of the institution. Any admission gained or matriculation made irregularly is subject to cancellation.

## EXPENSES

*Settlement of College Fees.* The Treasurer of the College is the financial officer and all transactions relating to payments must be conducted through him. The first quarterly payment must be made before a student can be assigned to a room in barracks or permitted to begin work. Remittances should be made in cash, money order, cashier's check, or by local check *made payable to S. W. Evans, Treasurer.* All remittances made by mail must be addressed to: *The Treasurer, Clemson College, Clemson, S. C.* A personal check which is given in payment of dues and is returned by the bank unpaid automatically cancels a student's reservation and automatically drops from class rolls a student who is in school.

*Expenses.* Considering the standard of living and quality of instruction, Clemson is one of the most economical colleges in the country. The total cost, exclusive of living cost and

clothing is only \$134.75. The total amount paid to the college by a new student for 1937-1938 was only \$388.12, which included board, room, laundry, hospital, class and laboratory fees, matriculation and student activity fees, tuition and uniform. Old students paid less, as explained below. Out-of-state students pay \$90 additional (see tuition).

Based upon conditions in 1937-1938, the living expenses, including board, laundry, heat, light, and water amounted to \$179.55. The fees for matriculation, student medical service, laboratory work, dormitory up-keep, institutional incidentals, and student activities totaled \$69.75.

The figures given in the above paragraph may be changed for 1938-1939; a more definite statement regarding expenses will be mailed to all applicants prior to the opening of the session.

The items listed above do not include the cost of books.

*Tuition.* Tuition for state students is \$65, and for out-of-state students \$155. The legal residence of parent or guardian determines the tuition status of the student.

*Uniforms.* All cadets are required to wear the regulation uniform of the College. The cost of the uniform garments needed by a student must be deposited with the Treasurer of the College at matriculation in September. The uniforms are made to individual measure and are purchased on the most favorable contract obtainable from a reputable manufacturer. The uniforms are the property of the student. The College merely acts as agent for the student and makes no charge or profit for handling. The total cost of complete new uniforms this session was \$73.82. Students in upper classes use serviceable uniform articles on hand.

If a student takes proper care of his uniform and certain garments are serviceable for a second year, he will not be re-

quired to purchase a complete new outfit. The cost therefore, to old students may be considerably reduced.

Any uniform allowances made to R. O. T. C. students by the Federal Government will be credited to the individual when the full amount of the commutation is received by the College.

*Note:* The expenses given above are for regular cadets who live in the dormitories. Under certain regulations, and with the approval of the President, a student may become a Day Cadet or Day Student. A Day Cadet is a member of the corps who rooms and boards outside of barracks. A Day Student is a member of the student body who is not a member of the cadet corps.

*Refunds to Students.* Refunds will be made to students under the following rules:

1. A refund for uniforms will not be guaranteed to students who withdraw from the College after the uniforms have been ordered. If the order cannot be cancelled, the uniform will be sent to the cadet.

2. A refund of living expenses at the rates charged will be made for interruptions exceeding fifteen days, not including holiday periods. A similar refund will be made in the case of a discharge issued more than fifteen days before the end of the current quarter. The change of status of students taking meals in the mess hall can be made at the time of payment of fees only.

3. No fees will be refunded.

4. A refund of *all* moneys, except the matriculation fee of \$3.00 and \$1.00 per day for board, etc., will be made to a student who leaves college within ten days of the date of his matriculation, with the provision that the refund for uniform cannot be guaranteed if the order has been made.

5. The College will not be liable for articles lost or stolen in the barracks.

6. The College will not be liable for lost or damaged laundry unless reported within two days after the date upon which the laundry was due to be delivered, and then not more than the actual depreciated value of such articles as have been lost or damaged.

*Student Banking Accounts.* For the convenience of students the College operates a banking department in the Treasurer's office where money can be deposited and withdrawn as the occasion may demand. This service is purely local. Students are urged to deposit their money in the bank and not to keep it in their rooms.

*Books and Supplies.* The L. C. Martin Drug Co., Inc., conducts a store near the campus and maintains a book and supply store where students may purchase textbooks, drawing instruments, and other supplies. A complete list of the textbooks used in each course, together with their prices will be furnished on application to the book store.

Each student will be required to own his textbooks and necessary equipment. All students shall submit their textbooks and other equipment for inspection at such times as are ordered.

*Optional Expenses.* It is not possible to give an estimate of a student's expenditures for such amusements as dancing, moving pictures, etc. This depends largely upon the disposition of the young man. The College endeavors to reduce to a minimum the temptation to spend money needlessly, but the authorities cannot be responsible for a student's private expenditures. This must be a matter between him and his parents.

*Transcripts.* Transcripts of scholastic records are not issued to students who have not been graduated. However, a transcript will be sent to any institution or other recognized rating agency upon request. One transcript is furnished free; additional copies are issued for one dollar each. Remittances for transcripts should be made payable to The Treasurer, Clemson College, but should accompany transcript requests and should be mailed to The Registrar.



*Student Aids.* There are few opportunities for students to earn money at Clemson by working in their spare time. In an agricultural and mechanical college most of the student's time when he is not in the classroom is occupied in laboratories, shops, and field work. About forty young men secure positions as waiters in the mess hall, for which service they are paid at the rate of about eight dollars a month. These positions are filled by the Mess Officer, to whom all correspondence should be addressed. In addition to this help, membership in the Reserve Officers Training Corps entitles freshmen and sophomores to a small commutation on uniforms. Juniors and seniors receive also a ration commutation.

### LOAN FUNDS

*John Bryce Baskin Fund.* Interest on \$2,000.00 given by Cecil L. Reid, of the Class of 1902, as an appreciation of the aid given him by Mr. Baskin. This fund is "available to any resident of South Carolina but if all other things are equal, preference is to be given the boy or boys from York or Newberry Counties, South Carolina."

*The William Wilson Finley Loan Fund.* The sum of \$1,000 has been deposited with the College to be used as a loan fund to students living in counties traversed by the Southern Railway or the Blue Ridge Railway.

*The George Cherry Foundation.* Mrs. Mary Cherry Doyle has donated \$1,000 to aid worthy and needy students from Oconee County and that part of Anderson County including Pendleton. This fund is not available for first-year students.

*The U. D. C. Loan Fund.* The John C. Calhoun Chapter of the U. D. C. has created a fund of \$500.00 to be loaned to lineal descendants of the Confederate veterans. This fund is limited to juniors and seniors.

*Clemson Student Loan Association Fund.* In the spring of 1930 President Sikes invited a number of interested teachers,

officers, alumni, and friends of Clemson College to meet for the purpose of raising funds to be loaned to worthy Clemson students who were already in college. Many responded. Officers were elected; a constitution and by-laws adopted. Twelve hundred dollars has already been realized through gifts and annual membership dues, which are five dollars per year. There are seventy-six members. Anyone desiring to assist young men in this way should communicate with Mr. W. K. Livingston, Greenville, S. C., who is president of the organization, or Mr. J. C. Littlejohn, Business Manager, Clemson, S. C.

The College is in need of funds to lend worthy students. Donations for this or other purposes may be made to the Board of Trustees of Clemson College, or to the Trustees of the Clemson Alumni Foundation. The President of the College or the Secretary of the boards named above will be glad to communicate with any person who is interested in establishing such a fund.

### ANDERSON FELLOWSHIP

*The Alexander P. Anderson and the Lydia Anderson Fellowship.* Mr. and Mrs. Anderson have given to the Clemson Agricultural College the sum of \$10,000 for the purpose of establishing a fellowship fund. The income from this trust fund is to be used for the purpose of awarding a scholarship or fellowship to one or more Clemson graduates for advanced work in biological sciences including bacteriology and entomology. The scholarship is to be awarded annually by the faculty of the Clemson Agricultural College to an outstanding student. The name of the beneficiary is reported to the Board of Trustees, and an accounting of the funds by the Treasurer of the College is made annually.

### SEARS ROEBUCK SCHOLARSHIPS

*The Sears Roebuck Agricultural Foundation* has made available for freshman agricultural scholarships at Clemson the sum

of \$2500 for the 1937-1938 session and \$2250 for the 1938-1939 session of the college.

### *BUILDINGS AND GROUNDS*

*Buildings.* The Administration Building houses the offices of the President, the Registrar, the Commandant, the Treasurer, the Business Manager, the Professor of Military Science and Tactics, and the Dean of the School of General Science. This building also has over twenty classrooms. At the north end of the building is Memorial Hall, the College Auditorium, with a seating capacity of about eighteen hundred.

The Library Building houses the main library of the college and the experiment station library. There are in the library approximately twenty-three thousand books and twenty thousand bound volumes of periodicals, experiment station bulletins, and government publications. The departmental libraries also contain a number of volumes pertaining especially to the work of the department concerned.

The instructional work of the institution is maintained largely in the departmental buildings. The Schools of Agriculture, Engineering, Textiles, Vocational Education, and Chemistry have individual buildings especially designed for their purposes. The School of General Science is located in the Administration Building. Certain laboratory work is conducted at the greenhouses, live stock barns, poultry plant, veterinary hospital, and other buildings on the college farm.

The cadet barracks consist of seven large brick buildings—four of which were constructed during 1936. All barracks are steam-heated, electrically-lighted, and supplied with hot and cold water. The six hundred and fifty rooms in the barracks are furnished with single-width iron cots and other necessary equipment.

The Hospital, located about a quarter of a mile from the barracks, is a wooden building, especially designed for the purpose. The equipment includes a Victor X-ray machine, a new Burdick ultra-violet ray machine, and a sorensen machine of the latest design for ear, eye, nose, and throat treatments.

The Y. M. C. A. building is a four-story structure equipped with club rooms, lounge rooms, game rooms, and has in addition, thirty rooms available for permanent roomers, guests, and transients. Having an auditorium, gymnasium, and swimming pool, the Y. M. C. A. building is admirably fitted to serve as the center of social activities and voluntary religious work.

The Physical Education Building at present consists of the Field House and the Gymnasium. Construction of the Alumni section which is to be a part of the Physical Education plant, has been begun.

The Laundry, which is operated exclusively for the students, is a brick building, equipped with improved modern machinery.

The Clemson College Hotel, a frame building, is situated on a hill overlooking the campus. This building and numerous brick and frame residences furnish homes for most of the college teachers and officers.

Fort Hill, the former home of John C. Calhoun, is located on the Clemson campus. In accordance with the provisions of Mr. Clemson's will, this residence has been made a shrine in honor of Mr. Calhoun. Several pieces of furniture and other interesting relics, formerly the property of Mr. Calhoun, are carefully preserved in this home, where they may be seen by visitors to the college.

*Grounds.* The college grounds comprise about 1,544 acres, including the campus, the farm, and the Experiment Station



grounds. The two-hundred acre campus is laid out in walks, drives, and lawns, and is shaded by a beautiful grove of native forest trees.

### *LIVING CONDITIONS*

At Clemson students live in barracks under military discipline. A student must at all times be present or accounted for. The barracks or dormitories are divided into "halls" for military purposes, a unit being assigned to a hall under the supervision of a cadet officer.

Cadet officers remain on duty both day and night at the guard room, in which is located a long-distance telephone with twenty-four hour service.

Each student room is equipped with necessary furniture. The beds are single width. Bed linen, bed covers, pillows, and towels must be furnished by the students.

All students are required to provide themselves with two mattress covers and two clothes bags. These are regulation articles and can be secured only at the College. One set will likely serve for use during the four years.

The dining hall, or mess hall, is located in Barracks No. 1. It is well equipped and is under the supervision of the mess officer. The kitchen and cold storage plant are among the best in the South. All students living in the barracks eat in the dining hall.

### *RESERVE OFFICERS' TRAINING CORPS*

Under the provisions of the National Defense Act, the War Department has established at Clemson College an infantry unit of the Reserve Officers' Training Corps. All students of the College, unless excused by the President, are required to take a minimum of three hours per week of military training.

To be admitted to membership in the corps and to receive the privileges connected therewith, juniors and seniors must be recommended by the President and the Professor of Military Science and Tactics. All members at the completion of the junior class will be required to attend a summer camp, where their expenses will be paid by the Federal Government. After graduation the student may upon the recommendation of his instructors receive a commission in the Officers' Reserve Corps.

### *STUDENT HEALTH SERVICE*

The Surgeon, who has complete charge of the hospital, is one of the regular officers of the College, and his special duty is to look after the health of the students.

At a specified time every day, students who desire may consult the Surgeon, and those who are admitted to the hospital are cared for by experienced nurses in the college hospital. In case of necessity students are allowed to consult the Surgeon at any time, or to send for him in an emergency.

The Surgeon cannot undertake to notify parents every time a student reports to the hospital for medicine, or for rest on account of some slight complaint. However, they may rest assured that they will be notified at once of sickness of any consequence.

The medical fee paid by each student is intended to cover all ordinary cases of sickness and their treatment. It is not intended to cover fees of doctors or specialists called into consultation, for performing operations, for special nurses, or for any medical or surgical attentions performed away from the College; and the College does not assume any responsibility for accidents that happen away from the College. Such expenses must be borne by the parents. The right of the College Surgeon, with the approval of the President of the College, to incur in behalf of any student under his care any of these extra services is hereby expressly reserved.

Intramural athletics are encouraged and sponsored by the physical education department and the Y. M. C. A. The various companies under the military organization have teams in such sports as volley ball, basketball, baseball, and soccer. These competitive games have drawn much interest and enthusiasm. At Clemson about two-thirds of the student body participate at one time or another in some intramural sport. Participation is voluntary, but the majority of the students take advantage of the opportunity for wholesome recreation and physical development.

### *RELIGIOUS INFLUENCES*

Clemson cooperates with the various churches and the Young Men's Christian Association in the religious training of its students. Denominations not having churches in the community have facilities provided in the Y. M. C. A. building for their services.

Five denominations: Baptist, Episcopal, Methodist, Presbyterian, and Roman Catholic, have erected churches in the community. Students are required to attend the Sunday morning services. Arrangements are made for services for students of other denominations. Sunday schools and young people's church societies are maintained by the local churches. Attendance upon the services of these organizations is voluntary.

Courses in Religion, which are credited as free electives, are offered. This work is not financed by the College. For information regarding these courses see the description of courses.

### *HISTORICAL STATEMENT*

In 1889, the General Assembly of South Carolina accepted the bequest of Thomas G. Clemson, which set aside the bulk of the Clemson estate for the founding of a scientific and

technical college. The institution was also established under the Morrill Land-Grant Act passed by the National Congress in 1862. Clemson College, therefore, is the Agricultural and Mechanical College of South Carolina and is a member of the national system of Land-Grant Colleges and Universities.

The nature of the institution is outlined in Mr. Clemson's will and its acceptance by the legislature.

The will in part reads:

“Feeling a great sympathy for the farmers of this State, and the difficulties with which they have to contend in their efforts to establish the business of agriculture upon a proper basis, and believing that there can be no permanent improvement in agriculture without a knowledge of those sciences which pertain particularly thereto, I have determined to devote the bulk of my property to the establishment of an Agricultural College upon the Fort Hill Place. My purpose is to establish an Agricultural College which will afford useful information to the farmers and mechanics; therefore it should afford thorough instruction in agriculture and the natural sciences connected therewith; it should combine, if practicable, physical with intellectual education, and should be a high seminary of learning in which the graduate of the common schools can commence, pursue and finish a course of studies terminating in thorough theoretic and practical instruction in those sciences and arts which bear directly upon agriculture. \* \* \* \* but to always bear in mind that the benefits herein sought to be bestowed are intended to benefit agriculture and mechanical industries. \* \* \* \* I trust I do not exaggerate the importance of such an institution for developing the material resources of the State, by affording its youth the advantages of scientific culture.

“The desire to establish such a school or college as I have provided for in my said last will and testament, has existed



with me for many years past, and many years ago I determined to devote the bulk of my property to the establishment of an Agricultural School or College. To accomplish this purpose is now the one great desire of my life.”

This will gave all that part of the Fort Hill Estate inherited by Mrs. Clemson from her mother and the bulk of Mrs. Clemson’s other real and personal property. The latter amounted to a sum, which, considering the purchasing power at the time, probably has been only a few times exceeded in a public benefaction in South Carolina.

A Board of Trustees of seven members was provided for: R. W. Simpson, D. K. Norris, M. L. Donaldson, R. E. Bowen, B. R. Tillman, J. E. Wannamaker, and J. E. Bradley, who with those chosen by the General Assembly should constitute a governing board in case the State accepted the bequest; but, who, in case the State declined the bequest, should alone constitute a governing board for a private institution.

These seven trustees, along with other friends of the movement, and the agricultural groups in the State developed and organized a public opinion favorable to the plan.

In November, 1889, the General Assembly of South Carolina accepted the terms of the will, and, following the decision of the United States Supreme Court to uphold the will, the State of South Carolina and the full Board of Trustees proceeded to convert the dream of Thomas G. Clemson into the reality of Clemson College.

The College was formally opened in July, 1893, with an enrollment of 446 students. The first graduating exercises were held in December, 1896, with a graduating class numbering thirty-six—fifteen in the agricultural courses and twenty-one in the engineering courses.

|                                         | 1936-1937 | Total  |
|-----------------------------------------|-----------|--------|
| ENROLLMENT—REGULAR SESSION .....        | 1,599     | 15,753 |
| <i>Graduates by Courses:</i>            |           |        |
| Agriculture .....                       | 26        | 1,745  |
| Agricultural Engineering .....          | 8         | 30     |
| Architecture .....                      | 3         | 132    |
| Civil Engineering .....                 | 10        | 346    |
| Electrical Engineering .....            | 16        | 433    |
| Mechanical Engineering .....            | 9         | 194    |
| Mechanical Electrical Engineering ..... | 0         | 528    |
| Education .....                         | 2         | 2      |
| Engineering Industrial Education .....  | 0         | 68     |
| Chemistry .....                         | 10        | 148    |
| General Science .....                   | 37        | 224    |
| Textile Engineering .....               | 26        | 370    |
| Textile Chemistry .....                 | 8         | 76     |
| Textile Industrial Education .....      | 2         | 76     |
| Weaving and Designing .....             | 5         | 21     |
| Bachelor of Science .....               | 0         | 1      |
| Vocational Agricultural Education ..... | 21        | 72     |
| Industrial Education .....              | 7         | 23     |
| Total .....                             | 190       | 4,489  |

### LOCATION

The College is located on the Fort Hill homestead of John C. Calhoun, in the picturesque foothills of the Blue Ridge. It has an elevation of 800 feet above sea level and commands an excellent view of the mountains to the north and west, some of which attain an altitude of nearly five thousand feet.

The College is located at Clemson, S. C., which is one mile from Calhoun, a town on the main line of the Southern Railway, and four miles from Pendleton, on the Blue Ridge Railway. State Highways number 13 and 24 pass through Clemson, and daily bus service at regular intervals is available.

### CLEMSON COLLEGE ALUMNI CORPORATION

The Alumni Corporation has established a permanent office on the campus. The office is in charge of a secretary, who is employed by the Board of Directors of the Corporation. The Clemson office is a clearing house for all matters concerning the alumni. In addition to keeping accurate records of addresses

and information concerning alumni, the Corporation has established at the Clemson headquarters a bureau for repairing Clemson class rings, and for securing duplicates of these rings.

The Corporation holds its regular annual meeting at the College on Monday of Commencement. At this meeting all officers are elected. The Secretary is elected by the Board of Directors which is in turn responsible to the general Corporation for the conduct of its business. The purpose of the Alumni Corporation is to serve the College and the alumni in every possible way. All correspondence regarding its affairs is conducted through the Clemson office.

Graduates and former students are requested to keep the Alumni Office informed as to changes of address, occupation, and other matters that will be of interest to those in charge of Alumni Records and mailing lists.

## PART III---STUDENT LIFE AND ACTIVITIES

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### CADET MILITARY ORGANIZATION

Clemson College is operated as a military school,—not for the purpose of making soldiers, but in order that the students may learn the importance of loyalty and obedience to authority, and acquire the habit of being courteous, systematic, and punctual.

The military system places every student on an equal standing. All cadets wear the uniform, live under the same conditions, and are subject to the same privileges and restraints.

The military system does not in any way interfere with the regular college work, but on the other hand enables it to maintain a higher level of efficiency. Military training is a feature that gives to Clemson's graduates an advantage which is an important factor in their future progress and success.

### CLUBS AND SOCIETIES

*Honor Fraternities.* Honor scholarship organizations, including Tau Beta Pi, Sigma Tau Epsilon, Phi Psi, Alpha Zeta, Alpha Tau Alpha, and Iota Lambda Sigma, give recognition to superior work done by Engineering, General Science, Textile, Agricultural, Agricultural Education, and Industrial Education students respectively.

The military activities of the cadet officers of the corps are recognized in membership in the Society of Scabbard and Blade, a national military honor fraternity.

The Blue Key, a national fraternity based upon leadership, has a chapter at Clemson.

*Student Clubs.* Students majoring in various courses of instruction have organized clubs. Among such clubs are in-



cluded the Agricultural Economics Club, the Dairy Club, the Horticultural Club, the Minaret Club (an architectural organization), and the Athanor (a chemical society).

Two literary societies, the Calhoun and the Palmetto, furnish a valuable supplement to scholastic work.

*Engineering Societies.* Outstanding students majoring in engineering courses are selected for membership in the Student Chapter of the American Institute of Electrical Engineers, American Society of Mechanical Engineers, and the American Society of Civil Engineers.

### *THE YOUNG MEN'S CHRISTIAN ASSOCIATION*

The Y. M. C. A. at Clemson is a composite of a Student Y. M. C. A., a City Y. M. C. A., a Community Building, and a Student Union. Hundreds of basketball and volley ball games are participated in by students, faculty, and campus children. Approximately a hundred social functions sponsored by the Y. M. C. A., or with the Y. M. C. A. cooperating, are held in the building during the year. Evening Watch Prayer groups and Bible discussion groups meet regularly on each company hall. More than half of the students take part in these meetings, with approximately forty faculty men assisting in leadership.

The Young Men's Christian Association has supervision of voluntary religious activities of the students and endeavors to contribute to the religious, social, and physical life of the college community.

The Sunday night union services held at the Y. M. C. A. are attended by approximately four hundred each Sunday night. It is here that the Y. M. C. A. presents visiting student groups as well as speakers, ministers, and other religious leaders.

## ATHLETICS

It is the policy of the College to sanction and encourage athletics so long as participation does not interfere with studies and other duties. Football, baseball, basketball and track are the most popular sports. The College is a member of the Southern Conference and of the South Carolina Intercollegiate Athletic Association.

*Intercollegiate Athletics.* For the regulation of intercollegiate athletics, the faculty has adopted the following rules:

1. At the end of each grading period, the faculty athletic committee will canvass the records of athletes; and if any are found to be so deficient as to endanger their scholastic standing, they will be withdrawn from the squad.

2. In order to participate in intercollegiate contests, each athletic team may be allowed a maximum absence of ten days during the session (Saturday afternoon, Sunday and holidays not to be included). No one contestant or representative shall be allowed to leave the campus for more than twenty days during the session, except at the discretion of the faculty athletic committee.

3. No member of an athletic team shall be eligible for a managerial position in any other branch of sport.

4. No team shall be allowed to leave the college grounds to participate in any match game unless accompanied by an authorized coach or other member of the faculty, who shall be responsible to the college for the conduct of the players while away.

5. No student shall be eligible to participate in an intercollegiate contest who is away from the College without proper authority or without having complied with all the rules or orders issued by the President regarding such matters.

6. It shall be the duty of the faculty athletic committee to see that the foregoing rules and regulations are strictly enforced.

### MEDALS AND HONORS

*Trustees' Medal.* The Board of Trustees has provided for a gold medal to be awarded annually at Commencement to the best speaker among the representatives of the literary societies. The medal was won in 1937 by Cadet Earl Mazo, Charleston, South Carolina.

*Norris Medal.* The following is from the will of Hon. D. K. Norris, a life trustee of Clemson, who died in 1905:

"I give \$500 face value, Norris Cotton Mill stock . . . on condition the dividend thereon shall be applied annually to the purchase of a gold medal, to be known as the 'Norris Medal', to be awarded to the student of Clemson meriting the same at graduation, under such rules and conditions as may be prescribed by the said Board of Trustees, and which medal shall have engraved on it 'Honor habet onus' (Honor brings responsibility)."

In 1937 the medal was awarded to Cadet R. B. Wearn, Newberry, South Carolina.

*R. W. Simpson Medal.* A medal designated as the "R. W. Simpson Medal" is awarded annually to the best drilled cadet in the freshman, sophomore, or junior class. In 1937 the medal was awarded to Cadet W. H. Ruff, Ridgeway, South Carolina.

*Arnold R. Boyd English Honor Key.* Arnold R. Boyd, '14, now a lawyer in New York, donates this Honor Key annually to the student in the graduating class who makes the highest average in English during his college course. In 1937 this key was awarded to Cadet H. S. Ashmore, Greenville, South Carolina.

*Architect's Medal.* The South Carolina Chapter of the American Institute of Architects each year awards a medal to the outstanding junior or senior in Architecture. In 1937 the medal was awarded to Cadet T. E. Stanley of Marion, South Carolina.

*Farmers' Certificate of Merit.* Beginning with the session of 1914-1915 certificates of merit have at times been awarded to two farmers in South Carolina who have rendered distinguished service in the agricultural development of the State.

*National Association of Cotton Manufacturers Medal.* For several years this medal has been awarded to the outstanding graduate in Textile Engineering. In 1937 the medal was won by Cadet R. E. Hilton, New Brookland, South Carolina.



## PART IV---ORGANIZATION AND GOVERNMENT

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### ADMINISTRATIVE ORGANIZATION

*Board of Trustees.* The government of the College is vested in a Board of thirteen members, six of whom are elected by the Legislature, and seven life and self-perpetuating under the Clemson will. The function of this Board is legislative and not executive. The Board determines the general policy of the College, makes the laws for its government, and directs the expenditure of its funds.

*The President* is the chief executive and administrative officer of the Board of Trustees. He is the head of the College and is responsible for its satisfactory working and success.

*The College* is divided into schools of Agriculture, Chemistry, Engineering, General Science, Textiles, and Vocational Education. A dean is at the head of each school and is responsible to the President for its conduct and success. The schools are comprised of departments. Each department is in charge of a professor who acts as its head. The President conducts all official business with each department through its dean.

*The Faculty* consists of all officers of instruction in the College. The voting members are the deans, professors, associate professors, and assistant professors.

The faculty meets at least once a month, or whenever called by the President, and is an advisory body to the President, on the instructional work of the College and such other business as he may bring before it.

The deans and directors of the various schools and departments meet weekly or when called by the President for consideration of matters affecting the welfare of the College. Departmental faculty meetings are held periodically.

*Faculty Committees.* In order to aid him in his executive duties and to carry on the instructional work of the College, the President appoints committees from the faculty. To these are assigned certain specified lines of work and the committees are clothed with full authority.

*The Discipline Committee.* The Discipline Committee is composed of six directors of departments and two full professors elected annually by the Board of Trustees. This committee constitutes the court of the College and tries cadets charged with serious offenses under the regulations. The President is the reviewing authority of the Discipline Committee, and may at his discretion set aside or modify the sentences imposed. A parent, or a cadet over age, has the right to appeal from the sentence of the Discipline Committee to the Board of Trustees, provided the appeal is lodged with the President of the College within thirty days. This appeal must be forwarded to the President of the Board of Trustees, who, if he deems the appeal meritorious, shall present it at the next regular or called meeting of the Board.

All trials by the Discipline Committee are open to the public and all testimony is taken under oath and recorded stenographically as is in a civil court. A student on trial may have some member of the faculty to assist him in his defense if he so desires.

### MILITARY ORGANIZATION

*The President.* The President of the College shall have general command and government of the institution, watching over its administration, discipline, and instruction. He shall have authority to make rules from time to time, governing the granting of permits and furloughs to cadets; to inspect anything in a cadet's room or personal baggage; to suspend or modify these regulations, or to publish special regulations when he considers it necessary, which shall have the authority of the Board of Trustees until they shall act on the same. He shall prescribe the hours of study, drill, and recreation.

*Commandant.* The Commandant of Cadets, under the President, has supervision of the discipline of the Corps of Cadets. He shall prescribe the order in which the furniture, bedding, books, clothing equipment, etc., shall be arranged throughout the barracks and shall make a thorough inspection of the rooms, furniture, arms, equipment and uniforms of the cadets at least once each week. He shall have the right to inspect anything in a cadet's room or personal baggage. He shall perform such other duties as are prescribed in the regulations. He shall have the rank of Colonel.

*Assistant Commandants.* The Assistant Commandants shall perform such duties as may be prescribed for them by the President or Commandant.

*Military Instruction.* All students, excepting such students as are excused by the President, must take a minimum of three hours military instruction per week. All who pass the required physical examination must take the Basic Course prescribed by the War Department for the R. O. T. C. during their freshman and sophomore years.

Members of the junior and senior classes are selected by the Professor of Military Science and Tactics, subject to the approval of the President, to take the Advanced Course prescribed for the R. O. T. C., receiving certain financial benefits allowed by the Federal Government.

*Cadet Officers and Non-commissioned Officers.* The cadet officers and non-commissioned officers are appointed by the Professor of Military Science and Tactics, subject to the approval of the President. When practicable they shall be appointed from members of the R. O. T. C. who have been most studious and soldier-like in the performance of their duties and most exemplary in their conduct. No cadet may decline any office to which he may be appointed.

As a rule the officers shall be appointed from the senior class, the non-commissioned officers, except corporals, from the junior class, and the corporals from the sophomore class.

*Study Hours.* Study hours are those parts of the day which are designated for study and shall be prescribed in orders. All hours at which a student has no classes or other duties may be used as study hours and students are expected to use vacant hours during the day as well as the study period after supper for study.

*Class Attendance.* Punctuality in the attendance of classes and other prescribed duties is required at Clemson College. However, to allow for personal emergencies, a limited number of class absences is allowed, under the provisions of the class attendance regulations.

*Furloughs.* Every cadet is responsible for his class absences whether he is on a furlough or at the college. Restrictions regarding class absences are explained in the class attendance regulations. Any cadet who has been granted a furlough and who stays over the time stipulated, unless for sickness or other reason acceptable to the Commandant, will be administered a punishment not to exceed one month's arrest and twenty demerits. In case a cadet is prevented by sickness from returning at the stipulated time, he must submit a certificate from his attending physician. However, no such certificate will be accepted unless the President or the Commandant has been notified in advance of the expiration of the furlough.

Cadets returning late on furlough are placed in room arrest pending an investigation of the reason of the late return.

All communications from parents requesting furloughs for their sons must be addressed or sent directly to "The Commandant," and must set forth fully the reason for the request. No furlough will be granted unless the reasons given are considered satisfactory and sufficient justification for any loss of time from



college duties; every student is held responsible for his class absences in accordance with the provisions of the class attendance regulations. Telegrams which do not explain fully will not be accepted as complying with the rules. In any case in which business is given as a reason, the nature of the business must be explained fully.

A parent has the right to demand a discharge from college at any time and for any reason, but the college authorities reserve the right to grant or refuse to grant furloughs.

*Week-End Leaves.* Week-end leaves will be granted under conditions prescribed by the President.

*Demerits.* Any regular cadet who may receive within any one semester more than 90 demerits during his freshman year, or more than 70 demerits during his sophomore year, or more than 60 demerits during his junior year, or more than 50 demerits during his senior year; or any day cadet who may receive within any one semester more than 70 demerits during his freshman year, or more than 60 demerits during his sophomore year, or more than 50 demerits during his junior year, or more than 35 demerits during his senior year shall be required, by the President, to withdraw immediately from College.

*Discharge.* No cadet unless twenty-one years of age and paying his own way at college shall be honorably discharged except on the written application of his parents or guardian addressed to the President, or for reasons satisfactory to the President.

### SCHOLASTIC REGULATIONS

1. The semester hour shall be the basis of all credits. One recitation hour or three laboratory or shop hours a week if self-contained, or two if considerable work is required out of the class period, shall constitute a semester hour.

2. The standing of a student in his work at the end of a semester shall be based on daily class work, regularity of attendance, tests or other work, and the final examinations.

3. Written examinations shall be required in all subjects at the end of each semester, except in certain laboratory or practical courses where not deemed necessary by the department faculty. A student who has been absent from more than one-fourth of the total number of class periods in any subject for a semester is debarred from the final examination.

4. A semester grade once reported to the Registrar shall be the final grade for the period covered.

5. No semester grade shall be given out or posted until the last day of the examination period. Grades will then be posted by instructors as promptly as possible.

6. When an instructor completes a subject he may hold an examination on it before beginning the next subject, provided such examination does not conflict with the regularly scheduled work.

7. *Reports and Grades*—Semester reports are mailed to parents after the end of each semester (usually within two or three weeks). Mid-semester reports do not form a part of the permanent record in the Registrar's office, but are sent to parents for their information.

The grading system shall be as follows:

*A—Excellent.* Indicates that the student is doing work of a very high character. The highest grade given.

*B—Good.* Indicates work that is satisfactory, though not of the highest order.

*C—Fair.* Indicates work of average or medium character.

*D—Pass.* Indicates work below the average and unsatisfactory. The lowest passing grade. For promotion to the junior and senior classes a student must have a grade above D on 50 per cent of his total credit hours. For graduation this average is also required.

*E—Conditioned.* Indicates a failure to satisfy the requirements as to daily recitations, tests or other work, as well as to the final examination, which condition in the opinion of the instructor may be made up by reexamination at some fixed time.

*F—Failed.* Indicates that a student knows so little of the subject that it must be repeated in order that credit may be received.

*I—Incomplete Work.* Indicates that a relatively small part of the semester's work remains undone. A grade *I* is not to be given a student who has made a grade *F* on his daily work.

*“I-Abs. Ex.”* Indicates absence from examination on account of sickness or other satisfactory reason.

#### 8. *Absences from Class. Removal of Grade I.*

Instructors report on class attendance every day they have classes whether or not there are absences.

Students should not request instructors to excuse them from classes or to change class periods or examinations. Instructors have no authority to grant such requests.

A student who has been absent from class for more than three weeks will be dropped from the roll, and his grade card will be returned by his instructor to the Registrar's office. Such a student will be readmitted only by permission from the Registrar.

All class work missed on account of absences for good and sufficient reasons shall be made up to the satisfaction of the instructor within thirty days after the student returns to classes.

All incomplete grades (*I*'s) for first semester not removed within thirty days after the beginning of the second semester shall become *F*'s. All incomplete grades (*I*'s) for second semester not removed within thirty days after the beginning of the first semester shall become failures (*F*'s) and must be taken over as such.

A student who, for reasons satisfactory to the faculty, is absent from any of the first semester examinations will be graded *I-Abs. Exam.* and will be allowed to make up these examinations during the second semester at the period scheduled for this work. A student who is absent for satisfactory reasons from any of the second semester examinations shall stand them during the make-up period in September. A student who is absent from an examination without excuse is graded *F*.

9. *Special Examinations.* Any request for a special examination must be approved by (1) the instructor concerned, (2) the head of the department concerned, (3) the dean of the school, and (4) the registrar. When the request is approved by all those concerned, a special examination will be given on payment of a \$2.00 fee.

10. *Removal of Conditions.* Only one opportunity shall be given a student to remove a condition (*E*) by a reexamination. A student who fails to pass such a reexamination shall be required to repeat the subject hour for hour in class. Not more than twelve credit hours of conditions for a session shall be removed by reexamination. A student shall not receive a grade higher than *D* when a deficiency is removed by reexamination.

Reexaminations shall be held as scheduled by the schedule committee. All conditions (*E*'s) not removed during the time set aside for reexaminations shall become failures. Seniors may remove conditions during the week preceding Commencement.

11. *Removal of Failures.* A student who has failed (made a grade *F*) in a subject cannot receive credit for that subject until it has been repeated hour for hour in class, except that in



the case of correlated laboratory work, the number of hours to be taken shall be determined by the instructor. Where separate grades for class and laboratory work are given, that part of the subject shall be repeated in which the failure occurs.

12. *Withdrawals on Account of Unsatisfactory Work.* A student who at the end of the first semester does not make a grade of *D* or above on at least nine credit hours may be required to withdraw from college. A student who at the end of the session does not make a grade of *D* or above on at least eighteen credit hours shall not be permitted to return the following session.

13. *Promotion and Classification.* Promotion is by subjects, but a student is classified according to the amount of college work completed. The term freshmen is used to apply to new students with the exception of those who have completed as much as a full year of college work elsewhere. Old students who have not passed as much as twenty-four semester credit hours are also designated as freshmen. To be a sophomore a student must have to his credit at least twenty-four semester hours, and to be a junior a student must have completed a total number of semester hours within fourteen credits of the requirements of the first two years of his course, and must have a grade of *C* or above on at least one-half of his credits. A student must have completed a total number of semester hours within forty-seven credits of the requirements for graduation in his course, and must have a grade of *C* or above on at least one-half of his credits, before he may be enrolled as a senior or hold any office or appointment reserved by the faculty for seniors. Every student is responsible for knowing the requirements of his course and his status in regard to meeting these requirements.

14. *Amount of Class Work Permitted and Required. Prerequisites.* The normal amount of work a student is expected to schedule shall be the number of credit hours listed in the curriculum which he is pursuing, plus a proportionate number of electives as explained under "Requirements for Degree."

Students who do not pass thirteen or more credit hours in any semester shall not be permitted to take more than eighteen credit hours in the following semester.

A student shall not be permitted to schedule extra subjects or take over in addition to his normal schedule any work unless he has made during the preceding semester a grade of *B*, or above, on at least 50 per cent of the total scheduled credit hours. Not more than five clock hours of work may be scheduled in addition to the number of credit hours prescribed in the curriculum.

A continuation subject in the next higher class shall not be scheduled until credit has been received for its prerequisites.

15. *Dropping Class Work.* Upon the recommendation of the instructor and the director concerned to the President, a student's standing will be investigated and he may be required to drop a subject because of neglect, or lack of application or preparation. No student will be dropped under this rule without approval by the President.

A subject dropped after the middle of the semester is recorded as a subject failed unless the student shall have a daily average of *C* or above in that subject; in which case it will be recorded as "subject dropped."

16. *Time of Scheduling Work.* All students shall register for classes during the class registration period. A fee of two dollars is charged for registering late for class work.

17. *Deficiencies in Year Courses.* A student who receives a grade *F* on a first-semester subject that is prerequisite for a second-semester subject shall not schedule such second-semester subject without permission of the reexamination and promotion committee and the dean of the school concerned.

18. *How to raise a Grade E.* A grade *E* may be removed as prescribed in Section 11. However, if a student makes a grade *E* in a subject which continues beyond the first semester and to the end of the second semester, the instructor may at

the end of the session recommend that the grade be raised to a *D*, provided the grade made on the work of the second semester is *A* or *B*. In such a case the recommendation of the instructor shall be made a special report, must be approved by the dean of the school, and must accompany the grades of the second semester.

19. *Promotion to the Junior and Senior Classes.* A student shall not be permitted to enroll in the senior class until all the work of the freshman and sophomore classes has been completed. A student shall not be admitted to the junior or senior classes who has not received grades above *D* on 50 per cent of his credit hours (See also Rule 13 above).

20. *Requirements for Graduation.* For graduation a student must have completed as many credit hours as are required in his course with a grade above *D* on 50 per cent of the total credit hours. All work must be completed before 5 P. M. on the Friday preceding Commencement.

Residence of at least one regular session shall be required for graduation.

21. *Seniors Failing to Graduate.* A senior who fails to graduate because of either one *E* or one *F* on any subject shall have an opportunity of removing it by examination during the make-up period in September provided he can furnish evidence of having done satisfactory study. Failing to do this he shall repeat the subject.

22. *Change in Course.* Aimless shifting is discouraged, but for good reasons a change in course may be made at the end of any semester. The student must meet the full requirements of the course to which he changes.

23. *Textbooks and Supplies.* Each student shall be required to own his individual textbooks and the necessary equipment.

All requests from the students to the faculty must be made in writing.

## PART V---REQUIREMENTS FOR DEGREES, COURSES OF STUDY

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### *BACHELOR OF SCIENCE DEGREE*

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The degree of Bachelor of Science is awarded to those students who satisfactorily complete one of the four-year curricula. In addition to the prescribed courses at least fourteen hours of *free electives* are allowed. Other electives are subject to the approval of the dean of the school in which the major course is taken. For rules governing scholastic work, see the scholastic regulations.

All work for a degree must be completed by 5 P. M. on the Friday preceding graduation exercises. Residence of at least one regular session is required for graduation. Every candidate for a degree must pay to the Treasurer of the College the cost of his diploma before 5 P. M. on the Friday preceding graduation.

If all work toward a degree is not completed within five years after entrance, the student may be required to take additional courses.

### *PROFESSIONAL DEGREE IN ENGINEERING*

The College offers the following professional engineering degrees: Civil Engineer, Electrical Engineer and Mechanical Engineer.

The requirements for these degrees are: (a) a Bachelor's degree from Clemson College in one of these three branches in engineering, (b) five years of subsequent professional experience, one year of which must have been in responsible charge of engineering or engineering instruction, (c) the preparation of a thesis demonstrating distinct technical ability. (Detailed information regarding professional degrees may be obtained from the Registrar.)



# COURSES OF STUDY

Twenty-four undergraduate courses of study are offered in the Schools of Agriculture, Chemistry, Engineering, General Science, Textiles, and Vocational Education. The major courses under each department are indicated below:

## SCHOOL OF AGRICULTURE

Agricultural Economics  
Agricultural Engineering  
Agronomy  
Animal Husbandry  
Dairy  
Entomology  
Horticulture

## SCHOOL OF CHEMISTRY

Chemistry

## SCHOOL OF GENERAL SCIENCE

General Science  
Pre-Medical  
Pre-Professional

## SCHOOL OF ENGINEERING

Architecture  
Chemical Engineering  
Civil Engineering  
Electrical Engineering  
Mechanical Engineering

## SCHOOL OF TEXTILES

Textile Chemistry and  
Dyeing  
Textile Engineering  
Weaving and Designing

## SCHOOL OF VOCATIONAL

EDUCATION  
Agricultural Education  
Education  
Industrial Education  
Textile Industrial Education

In addition to the work in these regular courses, the college offers the opportunity for certain work after graduation to properly qualified students from this and other institutions. This work may be of an advanced nature or may be a special program of undergraduate studies. Students interested in work along this line should consult the Registrar or the Head of the Department concerned.

While the college is glad to assist all who ask for help in securing employment, it does not guarantee positions to those who complete any of the courses of study.

In the curricula which follow are given the official title and number of the course, the descriptive title, the number of semes-

ter hours credit, and in parentheses the number of hours per week in class and laboratory, respectively.

## SCHOOL OF AGRICULTURE

The required curriculum in agriculture consists of fundamental and comprehensive subject matter in the School of Agriculture supplemented with courses in English, mathematics, and in the natural and social sciences. In addition to the courses required, opportunity is given for a broad selection of courses in the School of Agriculture and other schools of the College, which will prepare students for farming, positions as county agricultural agents, specialists and technicians in many fields of agriculture and allied industries, and other occupations of usefulness in an agricultural community.

The minimum requirements for the degree of Bachelor of Science in Agriculture are as follows:

|                                                |                |
|------------------------------------------------|----------------|
| Required courses in other schools.....         | 48 1/3 credits |
| Required courses in School of Agriculture..... | 50 2/3 credits |
| Electives (of which 14 are free electives).... | 41 credits     |
| <hr/>                                          |                |
| Total minimum credits required.....            | 140            |

The number of credits a student shall earn during each semester of the freshman and sophomore years is prescribed in the curriculum. Electives, of which 16 must be in the School of Agriculture, during the junior and senior years must be selected to bring the number of semester credit hours up to not less than 16 and not more than 20 in each semester.

All students in the School of Agriculture with the exception of those electing agricultural engineering, pursue the same curriculum during the freshman and sophomore years. Certain courses are also required of all agricultural students during the junior and senior years. In the junior and senior years a student must elect a major in agricultural economics, agronomy, animal husbandry, dairying, entomology, or horticulture. Suf-

ficient courses will be elected to complete the requirements for graduation.

Students of the School of Agriculture are given an opportunity to become familiar with the work of the agricultural experiment station, the extension service, crop pest commission, and fertilizer inspection and analysis. They also have opportunity to work on thesis problems in cooperation with members of the agricultural experiment station staff and in this way gain an insight into the methods employed in scientific research.

## AGRICULTURE

### *Basic Curriculum*

#### *Required of all Agricultural Students*

(Except those in Agricultural Engineering)

### FRESHMAN YEAR

#### *First Semester*

|                              |         |       |
|------------------------------|---------|-------|
| *Agr. 11, Field Crops        | -----3  | (3,0) |
| Bot. 13, Agricultural        | -----2½ | (2,2) |
| Chem. 11, General            | -----3½ | (3,2) |
| Drawing 11, Freehand         | -----½  | (0,2) |
| English 15, Comp. & Am. Lit. | 3       | (3,0) |
| Math. 17, First Year College |         |       |
| Math.                        | -----3  | (3,0) |
| M. S. 11, Military Science   | ---1    | (0,3) |
| M. E. 13, Woodwork           | -----½  | (0,2) |
|                              | <hr/>   |       |
|                              | 17½     |       |

#### *Second Semester*

|                              |         |       |
|------------------------------|---------|-------|
| *A. H. 12, Types, Breeds and |         |       |
| Market Classes               | -----2½ | (2,2) |
| Bot. 14, Agricultural        | -----3½ | (2,4) |
| Chem. 12, General            | -----3½ | (3,2) |
| Drawing 12, Mechanical       | -----½  | (0,2) |
| English 16, Comp. & Am. Lit. | 3       | (3,0) |
| Math. 18, First Year College |         |       |
| Math.                        | -----3  | (3,0) |
| M. S. 12, Military Science   | ---1    | (0,3) |
|                              | <hr/>   |       |
|                              | 17½     |       |

### SOPHOMORE YEAR

|                            |         |       |
|----------------------------|---------|-------|
| Chem. 21, Organic          | -----2½ | (2,2) |
| *Dairy 21, Dairying        | -----2½ | (2,2) |
| English 21, Lit. and Adv.  |         |       |
| Comp.                      | -----2  | (2,0) |
| Geol. 21, Agricultural     | -----3  | (3,0) |
| M. S. 21, Military Science | ---1    | (0,3) |
| *Physics 29                | -----4½ | (3,4) |
| Zool. 21, Zoology          | -----2½ | (2,2) |
|                            | <hr/>   |       |
|                            | 18½     |       |

|                            |         |       |
|----------------------------|---------|-------|
| *Ag. Ec. 22, Ag. Econ.     | -----3  | (3,0) |
| Agr. 20, Soils             | -----2½ | (2,2) |
| *Ag. Engr. 22, Farm Mach.  | -----2½ | (2,2) |
| Chem. 22, Agricultural     | -----2½ | (2,2) |
| English 22, Lit. and Adv.  |         |       |
| Comp.                      | -----2  | (2,0) |
| Hort. 22, General          | -----3  | (2,3) |
| M. S. 22, Military Science | ---1    | (0,3) |
|                            | <hr/>   |       |
|                            | 17      |       |

\*Offered both semesters.

## JUNIOR YEAR

|                               |       |                                   |       |
|-------------------------------|-------|-----------------------------------|-------|
| A. H. 31, Feeds and Feeding_3 | (3,0) | Ag. Ec. 32, Farm Org. and         |       |
| Bact. 31, General -----3½     | (2,4) | Mgt. -----2¾                      | (2,2) |
| Ent. 31, Introd. and Appl.    |       | Agr. 32, or Dairy 32, Genetics_2¾ | (2,2) |
| Ent. -----2¾                  | (2,2) | M. S. 32, Military Science_¾      | (0,2) |
| M. S. 31, Military Science_1  | (0,3) | P. H. 32, Farm Poultry_2¾         | (2,2) |
| Major and Electives -----8-10 |       | Major and Electives -----9½-11½   |       |
|                               | 18-20 |                                   | 18-20 |

## SENIOR YEAR

|                                |       |                                  |       |
|--------------------------------|-------|----------------------------------|-------|
| †Agr. 31, Fertilizers and      |       | Ag. Ec. 42, Rural Soc. -----3    | (3,0) |
| Manures -----2                 | (2,0) | M. S. 42, Military Science_¾     | (0,2) |
| Gov. 41, Government -----3     | (3,0) | Major and Electives -----12½-16½ |       |
| M. S. 41, Military Science_1   | (0,3) |                                  | 16-20 |
| Major and Electives -----12-14 |       |                                  |       |
|                                | 18-20 |                                  |       |

## AGRICULTURAL ECONOMICS MAJOR

## JUNIOR YEAR

*First Semester*

|                             |       |
|-----------------------------|-------|
| Required in Basic           |       |
| Curriculum -----10          |       |
| Ag. Ec. 33, Stat. Methods_3 | (3,0) |
| Electives -----3-7          |       |
|                             | 16-20 |

|                                   |       |
|-----------------------------------|-------|
| <b>Suggested Electives:</b>       |       |
| Econ. 23, Economics -----2        | (2,0) |
| Econ. 31, Cont. Ec. Problems_3    | (3,0) |
| Eng. 31, Public Speaking_2        | (2,0) |
| French 11 or German 11_3          | (3,0) |
| Hist. 31, Hist. of Civilization_3 | (3,0) |

*Second Semester*

|                                 |       |
|---------------------------------|-------|
| Required in Basic Curriculum 8¾ |       |
| Ag. Ec. 34, Public Finance_3    | (3,0) |
| Ag. Ec. 36, Coop. in Ag._3      | (3,0) |
| Electives -----1½-5½            |       |
|                                 | 16-20 |

|                                   |       |
|-----------------------------------|-------|
| <b>Suggested Electives:</b>       |       |
| Econ. 24, Economics -----2        | (2,0) |
| Econ. 31, Cont. Ec. Prob-         |       |
| lems -----3                       | (3,0) |
| Eng. 32, Business Law -----2      | (2,0) |
| Hist. 32, Hist. of Civilization_3 | (3,0) |
| Agr. 30, Forage Crops -----3      | (3,0) |
| French 12 or German 12_3          | (3,0) |

## SENIOR YEAR

|                                |       |
|--------------------------------|-------|
| Required in Basic Curriculum_6 |       |
| Ag. Ec. 41, Principles of      |       |
| Marketing -----3               | (3,0) |
| Ag. Ec. 43, Farm Finance and   |       |
| Accounting -----3              | (3,0) |
| Ag. Ec. 51, Seminar -----1     | (1,0) |
| Electives -----3-7             |       |
|                                | 16-20 |

|                                |       |
|--------------------------------|-------|
| <b>Suggested Electives:</b>    |       |
| French 21, or German 21_3      | (3,0) |
| Agr. 45, Crop Nutrition -----2 | (2,0) |
| Hort. 42, Syst. Pomology_2¾    | (2,2) |
| Eng. 31, Public Speaking_2     | (2,0) |
| Agr. 43, Farm Problems_2       | (2,0) |

|                                 |       |
|---------------------------------|-------|
| Required in Basic Curriculum_3¾ |       |
| Ag. Ec. 46, Farmer Move-        |       |
| ments -----3                    | (3,0) |
| Ag. Ec. 44, Land Economics_3    | (3,0) |
| Ag. Ec. 52, Seminar -----1      | (1,0) |
| Ag. Ec. 40, Econ. Geography_3   | (3,0) |
| Electives -----2½-6½            |       |
|                                 | 16-20 |

|                                |       |
|--------------------------------|-------|
| <b>Suggested Electives:</b>    |       |
| Econ. 24, Economics -----2     | (2,0) |
| Sociol. 31, Sociology -----2   | (2,0) |
| French 22 or German 22_3       | (3,0) |
| Agr. 42, Soil Fert. and Mgt._2 | (2,0) |
| Hort. 52, Com. Pomology_2¾     | (2,2) |

†Agronomy students take Agronomy 31 in the Junior Year and schedule two hours additional elective in the Senior Year.



# AGRONOMY MAJOR

## JUNIOR YEAR

### First Semester

|                                    |       |       |
|------------------------------------|-------|-------|
| Required in Basic Curriculum       | 10    |       |
| Agr. 31, Fert. and Manures         | 2     | (2,0) |
| English 31, Public Speaking        | 2     | (2,0) |
| Electives                          | 2-6   |       |
|                                    | 16-20 |       |
| <b>Suggested Electives:</b>        |       |       |
| Ag. Engr. 47, Soil Conservation    | 2     | (1,3) |
| Hort. 31, Plant Prop.              | 2½    | (2,2) |
| Psychol. 35, Psychol. for Teachers | 3     | (2,2) |

### Second Semester

|                                    |       |       |
|------------------------------------|-------|-------|
| Required in Basic Curriculum       | 8½    |       |
| Agr. 30, Forage Crops              | 3     | (3,0) |
| Bot. 30, Plant Phys.               | 3½    | (2,4) |
| Electives                          | 1-5   |       |
|                                    | 16-20 |       |
| <b>Suggested Electives:</b>        |       |       |
| Psychol. 36, Psychol. for Teachers | 3     | (2,2) |

## SENIOR YEAR

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 4     |       |
| Agr. 53, Cotton              | 2     | (2,0) |
| Agr. 45, Crop Nutrition      | 2     | (2,0) |
| Agr. 47, Adv. Crop Lab.      | ¾     | (0,2) |
| Agr. 49, Plant Breeding      | 2½    | (2,2) |
| Agr. 51, Seminar             | 1     | (1,0) |
| Agr. 61, Thesis              | 1     | (0,3) |
| Electives                    | 2¾-6¾ |       |
|                              | 16-20 |       |
| <b>Suggested Electives:</b>  |       |       |
| Bot. 41, Field Crop Diseases | 2¾    | (2,2) |
| Geol. 33, Mineralogy         | 2¾    | (2,2) |

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 3¾    |       |
| Agr. 42, Soil Fert. and Mgt. | 2     | (2,0) |
| Agr. 44, Adv. Soil Lab.      | ¾     | (0,2) |
| Agr. 52, Seminar             | 1     | (1,0) |
| Agr. 62, Thesis              | 1     | (0,3) |
| Bact. 44, Soil Microbiology  | 3     | (2,3) |
| Electives                    | 4¾-8¾ |       |
|                              | 16-20 |       |
| <b>Suggested Electives:</b>  |       |       |
| Y. M. 28, Cotton Grading     | ¾     | (0,2) |
| Geol. 40, Econ. Geography    | 3     | (3,0) |
| Ag. Ec. 44, Land Economics   | 3     | (3,0) |

# ANIMAL HUSBANDRY MAJOR

## JUNIOR YEAR

### First Semester

|                                       |       |       |
|---------------------------------------|-------|-------|
| Required in Basic Curriculum          | 10    |       |
| A. H. 32, Judging                     | ¾     | (0,2) |
| A. H. 35, Farm Meats                  | 2     | (0,6) |
| A. H. 37, Horse and Mule Production   | 2¾    | (2,2) |
| Electives                             | ¾-4¾  |       |
|                                       | 16-20 |       |
| <b>Suggested Electives:</b>           |       |       |
| English 31, Pub. Speaking             | 2     | (2,0) |
| Ag. Engr. 35, Motors & Pwr. Machinery | 3     | (2,3) |
| Psychol. 35, Psychology               | 3     | (2,2) |
| Ag. Ec. 33, Statistical Methods       | 3     | (3,0) |
| Dairy 31, Judging                     | ¾     | (0,2) |

### Second Semester

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 8¾    |       |
| A. H. 34, Pork Production    | 2¾    | (2,2) |
| Electives                    | 4¾-8¾ |       |
|                              | 16-20 |       |
| <b>Suggested Electives:</b>  |       |       |
| Agr. 30, Forage Crops        | 3     | (3,0) |
| Hort. 32, Prin. Veg. Prod.   | 2¾    | (2,2) |

## SENIOR YEAR

|                                      |       |       |
|--------------------------------------|-------|-------|
| Required in Basic Curriculum         | 6     |       |
| A. H. 41, Advanced Feeds and Feeding | 2     | (2,0) |
| A. H. 43, Beef Production            | 2½    | (2,2) |
| Vet. 41, Anatomy and Phys.           | 2½    | (2,2) |
| Electives                            | 2½-6½ |       |

16-20

|                                 |    |       |
|---------------------------------|----|-------|
| Suggested Electives:            |    |       |
| P. H. 41, Judging and Breeding  | 2½ | (2,2) |
| Ag. Ec. 45, Farm Accounts       | 2½ | (2,2) |
| Ag. Engr. 47, Soil Conservation | 2  | (1,3) |
| Eng. 31, Public Speaking        | 2  | (2,0) |
| Ag. Ec. 43, Ag. Finance         | 2  | (2,0) |

|                              |     |       |
|------------------------------|-----|-------|
| Required in Basic Curriculum | 3½  |       |
| A. H. 40, Animal Breeding    | 2½  | (2,2) |
| A. H. 42, Sheep Production   | 2½  | (2,2) |
| A. H. 52, Seminar            | 2   | (2,0) |
| Electives                    | 5-9 |       |

16-20

|                              |    |       |
|------------------------------|----|-------|
| Suggested Electives:         |    |       |
| Vet. 42, Diseases            | 2½ | (2,2) |
| P. H. 42, Adv. Poultry       | 2½ | (2,2) |
| Dairy 48, Nutrition          | 2  | (2,0) |
| Hort. 54, Truck Crops        | 2½ | (2,2) |
| Eng. 49, Ag. Journalism      | 2  | (2,0) |
| Agr. 42, Soil Fert. and Mgt. | 2  | (2,0) |

## DAIRY MAJOR

## JUNIOR YEAR

*First Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 10    |       |
| Dairy 35, Feeding and Mgt.   | 2½    | (2,2) |
| Dairy 31, Judging            | ½     | (0,2) |
| Electives                    | 2½-6½ |       |

16-20

|                                       |   |       |
|---------------------------------------|---|-------|
| Suggested Electives:                  |   |       |
| Eng. 31, Public Speaking              | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods             | 3 | (3,0) |
| Psychol. 35, Psychology               | 3 | (2,2) |
| Ag. Engr. 35, Motors & Pwr. Machinery | 3 | (2,3) |

*Second Semester*

|                                     |       |       |
|-------------------------------------|-------|-------|
| Required in Basic Curriculum        | 8½    |       |
| Chem. 34, Dairy Chemistry           | 3     | (2,3) |
| Dairy 34, Plant Org. and Management | 3     | (3,0) |
| Electives                           | 1½-5½ |       |

16-20

|                           |    |       |
|---------------------------|----|-------|
| Suggested Electives:      |    |       |
| Eng. 32, Business Law     | 2  | (2,0) |
| Agr. 30, Forage Crops     | 3  | (3,0) |
| A. H. 34, Pork Production | 2½ | (2,2) |

## SENIOR YEAR

|                                 |       |       |
|---------------------------------|-------|-------|
| Required in Basic Curriculum    | 6     |       |
| Dairy 41, Dairy Manufactures    | 3     | (2,3) |
| Dairy 43, Breeding              | 1½    | (1,2) |
| Dairy 51, Seminar               | 1     | (1,0) |
| Vet. 41, Anatomy and Physiology | 2½    | (2,2) |
| Electives                       | 1½-5½ |       |

16-20

|                                        |    |       |
|----------------------------------------|----|-------|
| Suggested Electives:                   |    |       |
| Ag. Ec. 43, Agri. Finance              | 2  | (2,0) |
| P. H. 41, Poultry Judging and Breeding | 2½ | (2,2) |
| Ag. Engr. 47, Soil Conservation        | 2  | (1,3) |
| Eng. 31, Public Speaking               | 2  | (2,0) |
| Agr. 43, Farm Problems                 | 2  | (2,0) |

|                              |     |       |
|------------------------------|-----|-------|
| Required in Basic Curriculum | 3½  |       |
| Bact. 40, Dairy Bact.        | 3   | (2,3) |
| Dairy 42, Dairy Manufactures | 3½  | (2,4) |
| Dairy 48, Nutrition          | 2   | (2,0) |
| Dairy 52, Seminar            | 1   | (1,0) |
| Electives                    | 3-7 |       |

16-20

|                          |    |       |
|--------------------------|----|-------|
| Suggested Electives:     |    |       |
| Eng. 49, Agr. Journalism | 2  | (2,0) |
| Vet. 42, Diseases        | 2½ | (2,2) |
| P. H. 42, Poultry        | 2½ | (2,2) |
| Agr. 42, Soil Fert. Mgt. | 2  | (2,0) |
| Hort. 54, Truck Crops    | 2½ | (2,2) |

## ENTOMOLOGY MAJOR

## JUNIOR YEAR

*First Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 10    |       |
| Zool. 33, Adv. Zoology       | 2½    | (2,2) |
| Electives                    | 3½-7½ |       |

16-20

**Suggested Electives:**

|                          |   |       |
|--------------------------|---|-------|
| German 11, German        | 3 | (3,0) |
| Eng. 31, Public Speaking | 2 | (2,0) |
| Hist. 31, Hist. of Civ.  | 3 | (3,0) |

*Second Semester*

|                              |     |       |
|------------------------------|-----|-------|
| Required in Basic Curriculum | 8¾  |       |
| Ent. 32, Gen. Entomology     | 3½  | (2,4) |
| Electives                    | 4-8 |       |

16-20

**Suggested Electives:**

|                               |    |       |
|-------------------------------|----|-------|
| Zool. 48, Intro. to Game Mgt. | 2  | (2,0) |
| German 12, German             | 3  | (3,0) |
| Bot. 30, Plant Phys.          | 3½ | (2,4) |
| Eng. 32, Bus. Law             | 2  | (2,0) |

## SENIOR YEAR

|                              |      |       |
|------------------------------|------|-------|
| Required in Basic Curriculum | 6    |       |
| Ent. 41, Ec. Entomology      | 2¾   | (2,2) |
| Ent. 45, Ins. Morphology     | 2¾   | (2,2) |
| Bot. 43, O. & T. Diseases    | 2¾   | (2,2) |
| Ent. 51, Seminar             | 1    | (1,0) |
| Ent. 59, Introd. to Research | 1¾   | (1,2) |
| Electives                    | 0-3½ |       |

16¾-20

**Suggested Electives:**

|                                    |   |       |
|------------------------------------|---|-------|
| Ent. 47, Parasitology              | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods          | 3 | (3,0) |
| Psych. 35, Psychology for Teachers | 3 | (2,2) |

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 3¾    |       |
| Ent. 42, Econ. Ent.          | 2¾    | (2,2) |
| Ent. 44, Beekeeping          | 2¾    | (2,2) |
| Ent. 46, Systematic Ent.     | 2¾    | (1,4) |
| Ent. 52, Seminar             | 1     | (1,0) |
| Electives                    | 3¾-7¾ |       |

16-20

**Suggested Electives:**

|                                      |   |       |
|--------------------------------------|---|-------|
| Geol. 42, Meteorology                | 2 | (2,0) |
| Eng. 49, Agri. Journalism            | 2 | (2,0) |
| Psychol. 36, Psychology for Teachers | 3 | (2,2) |
| Sociol. 31, Sociology                | 2 | (2,0) |

## HORTICULTURE MAJOR

## JUNIOR YEAR

*First Semester*

|                                 |     |       |
|---------------------------------|-----|-------|
| Required in Basic Curriculum    | 9¾  |       |
| Hort. 33, Prin. Veg. Production | 2¾  | (2,2) |
| Hort. 31, Plant Propagation     | 2¾  | (2,2) |
| Electives                       | 1-5 |       |

16-20

**Suggested Electives:**

|                                 |    |       |
|---------------------------------|----|-------|
| Hist. 31, Hist. of Civilization | 3  | (3,0) |
| Eng. 31, Public Speaking        | 2  | (2,0) |
| Ag. Ec. 33, Stat. Methods       | 2¾ | (2,2) |

*Second Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 8¾    |       |
| Botany 30, Plant Phys.       | 3½    | (2,4) |
| Hort. 32, Landsc. Gardening  | 2¾    | (2,2) |
| Electives                    | 1½-5½ |       |

16-20

**Suggested Electives:**

|                                 |    |       |
|---------------------------------|----|-------|
| Ag. Ec. 34, Public Finance      | 2¾ | (2,2) |
| Eng. 32, Business Law           | 2  | (2,0) |
| Hist. 32, Hist. of Civilization | 3  | (3,0) |

## SENIOR YEAR

|                                                            |     |       |
|------------------------------------------------------------|-----|-------|
| Required in Basic Curriculum                               | 6   |       |
| Bot. 43, O. and T. Crop Diseases                           | 2¾  | (2,2) |
| Hort. 44, Breeding of Hort. Crops or Hort. 48, Nut Culture | 2¾  | (2,2) |
| Hort. 42, Syst. Pomology                                   | 2¾  | (2,2) |
| Hort. 61, Seminar                                          | 1   | (1,0) |
| Electives                                                  | 1-5 |       |

16-20

**Suggested Electives:**

|                                 |    |       |
|---------------------------------|----|-------|
| Hort. 45, Land. Design          | 2  | (1,3) |
| Ag. Ec. 41, Prin. of Mktg.      | 3  | (3,0) |
| Ag. Engr. 47, Soil Conservation | 2  | (1,3) |
| Ag. 49, Plant Breeding          | 2¾ | (2,2) |

|                              |      |       |
|------------------------------|------|-------|
| Required in Basic Curriculum | 3¾   |       |
| Hort. 52, Com. Pomology      | 2¾   | (2,2) |
| Hort. 54, Truck Crops        | 2¾   | (2,2) |
| Hort. 62, Seminar            | 1    | (1,0) |
| Electives                    | 6-10 |       |

16-20

**Suggested Electives:**

|                             |    |       |
|-----------------------------|----|-------|
| Hort. 46, Floriculture      | 2¾ | (2,2) |
| Hort. 56, Land. Design      | 2  | (1,3) |
| Geol. 40, Economic Geog.    | 3  | (3,0) |
| Geol. 42, Meteorology       | 2  | (2,0) |
| Ag. 42, Soil Fert. and Mgt. | 2  | (2,0) |
| Ent. 42, Ec. Entomology     | 2¾ | (2,2) |

## AGRICULTURAL ENGINEERING

This course is provided for the training of students in the principles of engineering as applied to agriculture. Due to the rapidly increasing demand for the services and advice of men trained in both agricultural and engineering technique, this course fills a necessary place in adequately preparing men to meet these demands.

The curriculum is formulated requiring sufficient courses in the liberal arts, the foundation subjects of engineering and agriculture, and the specific agricultural engineering subjects, such as Farm Mechanics, Surveying and Drainage, Motors and Power Machinery, etc., all of which will equip the engineer for any phase of this profession.

## AGRICULTURAL ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                                  |    |       |
|----------------------------------|----|-------|
| Bot. 13, Agricultural .....      | 2½ | (2,2) |
| Chem. 11, General .....          | 3½ | (3,2) |
| Drawing 13, Engr. Drawing .....  | 1½ | (0,4) |
| Eng. 15, Comp. & Am. Lit. ....   | 3  | (3,0) |
| Math. 11, Trigonometry .....     | 5  | (5,0) |
| M. E. 17, or M. E. 12 & 14 ..... | 2  | (0,6) |
| M. S. 11, Military Science ..... | 1  | (0,3) |

18½

#### *Second Semester*

|                                  |    |       |
|----------------------------------|----|-------|
| Bot. 14, Agricultural .....      | 3½ | (2,4) |
| Chem. 12, General .....          | 3½ | (3,2) |
| Drawing 14, Engr. Drawing .....  | 1½ | (0,4) |
| Eng. 16, Comp. & Am. Lit. ....   | 3  | (3,0) |
| Math. 12, Analytics .....        | 5  | (5,0) |
| M. E. 12 & 14, or M. E. 17 ..... | 2  | (0,6) |
| M. S. 12, Military Science ..... | 1  | (0,3) |

19½

### SOPHOMORE YEAR

|                                                       |    |       |
|-------------------------------------------------------|----|-------|
| *A. H. 12, Types, Breeds, and<br>Market Classes ..... | 2½ | (2,2) |
| Ag. Engr. 23, Agr. Mechanics .....                    | 3  | (2,3) |
| Drawing 25, Mechanical .....                          | ½  | (0,2) |
| Eng. 21, Lit. & Adv. Comp. ....                       | 2  | (2,0) |
| Physics 21, 23, General .....                         | 5  | (4,3) |
| Math. 21, Dif. Calculus .....                         | 5  | (5,0) |
| M. S. 21, Military Science .....                      | 1  | (0,3) |

19½

|                                       |    |       |
|---------------------------------------|----|-------|
| Ag. Engr. 22, Farm Mach. ....         | 2½ | (2,2) |
| Drawing 26, Elem. Des.<br>& Kin. .... | ½  | (0,2) |
| Eng. 22, Lit. & Adv. Comp. ....       | 2  | (2,0) |
| Physics 22, 24, General .....         | 5  | (4,3) |
| Math. 22, Int. Calculus .....         | 5  | (5,0) |
| M. S. 22, Military Science .....      | 1  | (0,3) |

16½

### JUNIOR YEAR

|                                           |       |       |
|-------------------------------------------|-------|-------|
| Ag. Engr. 35, Motors &<br>Pwr. Mach. .... | 3     | (2,3) |
| C. E. 31, Mechanics .....                 | 3     | (3,0) |
| Dairy 21, Introduc. ....                  | 2½    | (2,2) |
| E. E. 35, Elect. Mach. ....               | 2½    | (2,2) |
| Geol. 43, Engr. Geology .....             | 2     | (2,0) |
| M. S. 31, Military Science .....          | 1     | (0,3) |
| Electives .....                           | 3½-5½ |       |

18-20

|                                          |     |       |
|------------------------------------------|-----|-------|
| Ag. Ec. 32, Farm Mgt. ....               | 2½  | (2,2) |
| Agr. 11, Field Crops .....               | 3   | (3,0) |
| C. E. 23, Surveying .....                | 1½  | (1,2) |
| C. E. 32, Strength of<br>Materials ..... | 3   | (3,0) |
| Hort. 22, General .....                  | 3   | (2,3) |
| M. S. 32, Military Science .....         | ½   | (0,2) |
| Electives .....                          | 4-6 |       |

18-20

#### Suggested Electives:

|                                 |   |       |
|---------------------------------|---|-------|
| A. H. 31, Feeds & Feeding ..... | 3 | (3,0) |
| Econ. 23, Elem. Economics ..... | 2 | (2,0) |
| Gov. 41, Government .....       | 3 | (3,0) |

#### Suggested Electives:

|                            |    |       |
|----------------------------|----|-------|
| Agr. 32 or Dairy 32 .....  | 2½ | (2,2) |
| Econ. 24, Elem. Econ. .... | 2  | (2,0) |

\*Offered both semesters.



## SENIOR YEAR

|                                                  |       |       |                                             |      |       |
|--------------------------------------------------|-------|-------|---------------------------------------------|------|-------|
| Ag. Engr. 43, Water Supply<br>& Sanitation ----- | 2½    | (2,2) | Ag. Engr. 46, Adv. Farm<br>Buildings -----  | 2    | (1,3) |
| Ag. Engr. 45, Farm Buildings----                 | 2     | (1,3) | Ag. Engr. 48, Adv. Farm<br>Mach. Lab. ----- | 1    | (0,3) |
| Ag. Engr. 51, Thesis -----                       | ¾     | (0,2) | Ag. Engr. 49, Surveying<br>& Drainage ----- | 3    | (2,3) |
| C. E. 49, Hydraulics -----                       | 3     | (3,0) | Ag. Engr. 52, Thesis -----                  | ¾    | (0,2) |
| Eng. 31, Public Speak. -----                     | 2     | (2,0) | Ag. 20, Soils -----                         | 2¾   | (2,2) |
| M. S. 41, Military Science----                   | 1     | (0,3) | M. S. 42, Military Science----              | ¾    | (0,2) |
| Electives -----                                  | 4¾-8¾ |       | Electives -----                             | 6-10 |       |
| 16-20                                            |       |       | 16-20                                       |      |       |

|                              |    |       |                              |    |       |
|------------------------------|----|-------|------------------------------|----|-------|
| <b>Suggested Electives:</b>  |    |       | <b>Suggested Electives:</b>  |    |       |
| Ag. Ec. 45, Farm Account---- | 2¾ | (2,2) | Bact. 42, Sanitary Bact.---- | 3  | (2,3) |
| Agr. 53, Cotton -----        | 2  | (2,0) | Eng. 49, Agr. Journalism---- | 2  | (2,0) |
| M. E. 23, Mach. Shop -----   | 1  | (0,3) | Hort. 42, Com. Pom. -----    | 2¾ | (2,2) |
|                              |    |       | Eng. 32, Business Law -----  | 2  | (2,0) |

## SCHOOL OF CHEMISTRY

This course is intended to prepare the student to engage in manufacturing operations involving a knowledge of chemistry, for employment as chemist in commercial, fertilizer inspection, or food or feeding-stuff inspection laboratories, and for experiment station work or U. S. Government service. A student who has satisfactorily completed this course will be well equipped in subject matter to teach elementary chemistry, or to pursue advanced work in chemistry.

Beginning with the junior year, sufficient electives are allowed to enable the student to fit himself for one of the fields of work listed above by pursuing the subject in the direction of chemical engineering, organic, physical, analytical or sanitary chemistry. The advances in all branches of chemistry have made specialization necessary, whether the student expects to enter any of the various lines of work open to a graduate of a thorough course in chemistry, or to pursue graduate work. For the latter group, two years of a modern language should be included in the electives chosen since this is a usual prerequisite for graduate work at most universities. Owing to the demand for biochemistry, any students who are interested in such a course may pursue the Chemistry Curriculum and elect biological subjects during the junior and senior years.

## CHEMISTRY

## FRESHMAN YEAR

| <i>First Semester</i>                |          | <i>Second Semester</i>                        |          |
|--------------------------------------|----------|-----------------------------------------------|----------|
| Chem. 13, General -----              | 4 (3,3)  | Chem. 14, General -----                       | 4 (3,3)  |
| English 15, Comp. and Am. Lit. ----- | 3 (3,0)  | English 16, Comp. and Am. Lit. -----          | 3 (3,0)  |
| *Modern Language -----               | 3 (3,0)  | *Modern Language -----                        | 3 (3,0)  |
| Math. 11, Trigonometry -----         | 5 (5,0)  | Math. 12, Analytics and College Algebra ----- | 5 (5,0)  |
| M. S. 11, Military Science -----     | 1 (0,3)  | M. S. 12, Military Science -----              | 1 (0,3)  |
| Physics 11, General -----            | 3½ (3,2) | Physics 12, General -----                     | 3½ (3,2) |
| <hr/> 19½                            |          | <hr/> 19½                                     |          |

## SOPHOMORE YEAR

|                                    |          |                                    |          |
|------------------------------------|----------|------------------------------------|----------|
| Chem. 23, Qualitative -----        | 4½ (2,8) | Chem. 24, Quantitative -----       | 4½ (2,8) |
| Chem. 25, Organic -----            | 4½ (3,4) | Chem. 26, Organic -----            | 4½ (3,4) |
| Drawing 13, Engr. Drawing -----    | 1½ (0,4) | Drawing 14, Engr. Drawing -----    | 1½ (0,4) |
| Eng. 21, Lit. and Adv. Comp. ----- | 2 (2,0)  | Eng. 22, Lit. and Adv. Comp. ----- | 2 (2,0)  |
| Math. 21, Dif. Calculus -----      | 5 (5,0)  | Math. 22, Int. Calculus -----      | 5 (5,0)  |
| M. S. 21, Military Science -----   | 1 (0,3)  | M. S. 22, Military Science -----   | 1 (0,3)  |
| <hr/> 18½                          |          | <hr/> 18½                          |          |

## JUNIOR YEAR

|                                  |          |                                  |          |
|----------------------------------|----------|----------------------------------|----------|
| Chem. 31, Physical -----         | 4½ (3,4) | Chem. 32, Physical -----         | 4½ (3,4) |
| Chem. 33, Quantitative -----     | 2 (1,3)  | Sociol. 31, Sociology -----      | 2 (2,0)  |
| Chem. 35, Organic -----          | 3 (2,3)  | English 32, Business Law -----   | 2 (2,0)  |
| Econ. 23, Econ. -----            | 2 (2,0)  | Geology 34, Mineralogy -----     | 2½ (2,2) |
| English 31, Pub. Speaking -----  | 2 (2,0)  | M. S. 32, Military Science ----- | ¾ (0,2)  |
| Geology 33, Mineralogy -----     | 2½ (2,2) | Electives -----                  | 4½-8½    |
| M. S. 31, Military Science ----- | 1 (0,3)  | <hr/> 16-20                      |          |
| Electives -----                  | 0-3      | <hr/> 17-20                      |          |

## SENIOR YEAR

|                                  |         |                                  |         |
|----------------------------------|---------|----------------------------------|---------|
| Chem. 45, History -----          | 2 (2,0) | Chem. 46, Stoich. -----          | 2 (2,0) |
| Chem. 43, Colloids -----         | 2 (2,0) | Chem. 44, Colloids -----         | 2 (2,0) |
| Chem. 41, Adv. Inorg. -----      | 2 (2,0) | Chem. 42, Adv. Inorg. -----      | 2 (2,0) |
| Chem. 47, Tech. Anal. -----      | 3 (1,6) | Chem. 50, Thesis -----           | 3 (0,9) |
| M. S. 41, Military Science ----- | 1 (0,3) | M. S. 42, Military Science ----- | ¾ (0,2) |
| Electives -----                  | 6-10    | Electives -----                  | 6½-10½  |
| <hr/> 16-20                      |         | <hr/> 16-20                      |         |

\*History 14 and Government 12, 4 hour option—in place of Modern Language.

## SCHOOL OF ENGINEERING

The courses in the School of Engineering are Architecture, Chemical Engineering, Civil Engineering, Electrical Engineering and Mechanical Engineering. For most students it is recommended that they take, either as part of the free electives or as an addition, some courses in the social sciences.

If a student in Electrical or Mechanical Engineering does outstanding work in his freshman year, he may arrange with the dean of the School of Engineering to take both Electrical and Mechanical Engineering. This is particularly true of the non-R. O. T. C. student. These two courses may be taken in five years, allowing considerable elective work to be taken in General Science, Textile, and possibly some courses in Civil Engineering.

A student in Mechanical Engineering or Electrical Engineering if non-R. O. T. C. is permitted to elect considerable work in the Textile School if he plans his junior and senior years in advance. The R. O. T. C. student may arrange for a half year or one year additional, in which case he may take considerable Textile work provided he decides this by the beginning of the junior year.

### ARCHITECTURE

The information given below applies to the four-year course in Architecture as now given. In order to meet the modern trend the College is offering a five-year course in Architecture leading to the degree of Bachelor in Architecture. In this course the technical work of the lower classes is extended and elaborated, the fifth year design comprising a thesis in which the student selects his subject and writes the program to meet the approval of the faculty of Architecture. Work in Domestic Architecture, Specification Writing, Estimating, Chemistry, Surveying, Advanced History, and allied subjects are included. A copy of the curriculum may be secured upon request.

The course is a well-rounded cultural one, fitting the graduate not only for the practice of architecture, but for a number of allied professions. All work is individual and every effort is made to develop the student's individuality, imagination, and creative ability. Skillful draftsmanship and artistic presentation are insisted upon.

Architecture is one of the fine arts and much time is given to freehand drawing, color work, history of architecture, painting, and sculpture. Architectural design, the principal subject, extends through four years. In this the student is given a written program of requirements for a building or group of buildings and under the criticism of the instructor works out a solution embodying his own ideas. Freehand drawing consists of sketching and rendering from casts, nature and life, in pencil, charcoal, pen and ink, crayons, water color and oils. This extends through four years. History of architecture, historic ornament, and history of art are taught in the sophomore, junior and senior years.

Fundamental courses are given in mathematics, graphic statics, strength of materials, reinforced concrete, building construction, and in working drawings which consist of complete plans and specifications for a building prepared as in the office of a practising architect.

The work in architecture occupies especially designed quarters on the top floor of Riggs Hall. One feature is a large drafting room equipped with individual drafting tables. This is a marked advantage since all may study their problems in design and have the benefit of mutual help and criticism. Adjoining this room and equipped with controlled lighting, is a studio containing plaster casts and models suitable for the needs in freehand drawing and color work. Class rooms are equipped with lanterns and slides.

A working library adjoining the drafting rooms contains many volumes concerning architecture and allied subjects, photographs, plans and illustrations, lantern slides, drawings, models, and files of the leading architectural magazines, both American and foreign. This is in addition to the main college library. In the structural drafting room is a complete built-in exhibit of building materials and appliances especially arranged for instructional purposes.



Each spring students are expected to take an educational trip to a large city to study examples of architecture and construction.

Six weeks of practical architectural work approved by the architectural faculty are required for graduation (Arch. 28).

## ARCHITECTURE

### FRESHMAN YEAR

#### First Semester

|                                |    |       |
|--------------------------------|----|-------|
| Arch. 11, Elems. of Arch.      | 1½ | (0,5) |
| Arch. 13, Freehand Drawing     | 1½ | (0,4) |
| Arch. 15, Descrip. Geom.       | ½  | (0,2) |
| English 15, Comp. and Am. Lit. | 3  | (3,0) |
| *French 11,                    | 3  | (3,0) |
| *Chem. 11, Gen. Chem.          | 3½ | (3,2) |
| Math. 11, Trigonometry         | 5  | (5,0) |
| Physics 11, General            | 3½ | (3,2) |
| M. S. 11, Military Science     | 1  | (0,3) |

19½ or 20

#### Second Semester

|                                       |    |       |
|---------------------------------------|----|-------|
| Arch. 12, Arch. Design                | 1½ | (0,5) |
| Arch. 14, Freehand Drawing            | 1½ | (0,4) |
| Arch. 16, Sh. Shad. & Persp.          | ½  | (0,2) |
| English 16, Comp. and Am. Lit.        | 3  | (3,0) |
| *French 12,                           | 3  | (3,0) |
| *Chem. 12, Gen. Chem.                 | 3½ | (3,2) |
| Math. 12, Analytics & College Algebra | 5  | (5,0) |
| Physics 12, General                   | 3½ | (3,2) |
| M. S. 12, Military Science            | 1  | (0,3) |

19½ or 20

### SOPHOMORE YEAR

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 21, Arch. Design          | 4½ | (0,14) |
| Arch. 23, Antique and Color     | 1  | (0,3)  |
| Arch. 25, Hist. of Arch.        | 4  | (4,0)  |
| *French 21                      | 3  | (3,0)  |
| *Hist. 31, Hist. of Civ.        | 3  | (3,0)  |
| English 21, Lit. and Adv. Comp. | 2  | (2,0)  |
| Math. 23, Dif. Calculus         | 3  | (3,0)  |
| M. S. 21, Military Science      | 1  | (0,3)  |

18½

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 22, Arch. Design          | 4½ | (0,14) |
| Arch. 24, Antique and Color     | 1  | (0,3)  |
| Arch. 26, Hist. of Arch.        | 4  | (4,0)  |
| *French 22                      | 3  | (3,0)  |
| *Hist. 32, Hist. of Civ.        | 3  | (3,0)  |
| English 22, Lit. and Adv. Comp. | 2  | (2,0)  |
| Math. 24, Int. Calculus         | 3  | (3,0)  |
| M. S. 22, Military Science      | 1  | (0,3)  |

18½

### JUNIOR YEAR

|                              |    |        |
|------------------------------|----|--------|
| Arch. 31, Arch. Design       | 7½ | (0,22) |
| Arch. 33, Sketching & Paint. | 1  | (0,3)  |
| Arch. 35, Bldg. Constr.      | 3  | (3,0)  |
| Arch. 37, Working Drawings   | ½  | (0,2)  |
| Arch. 39, Hist. Ornament     | ½  | (0,2)  |
| **C. E. 31, Mechanics        | 3  | (3,0)  |
| English 31, Public Speaking  | 2  | (2,0)  |
| M. S. 31, Military Science   | 1  | (0,3)  |
| Elective                     | 2  | (2,0)  |

20½

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 32, Arch. Design          | 7½ | (0,22) |
| Arch. 34, Sketching & Paint.    | 1  | (0,3)  |
| Arch. 36, Bldg. Constr.         | 2  | (2,0)  |
| Arch. 38, Working Drawings      | ½  | (0,2)  |
| C. E. 32, Strength of Materials | 3  | (3,0)  |
| C. E. 34, Graphic Statics       | 1½ | (1,2)  |
| English 32, Business Law        | 2  | (2,0)  |
| M. S. 32, Military Science      | ½  | (0,2)  |
| Elective                        | 3  | (3,0)  |

21½

\*French 11, 12, 21, and 22 or Chemistry 11, 12 and History 31, 32.

\*\*Offered both semesters.

## SENIOR YEAR

|                                 |                 |        |   |                                 |                 |        |
|---------------------------------|-----------------|--------|---|---------------------------------|-----------------|--------|
| Arch. 41, Arch. Design -----    | 6 $\frac{3}{4}$ | (0,20) | ✓ | Arch. 42, Arch. Design -----    | 6 $\frac{3}{4}$ | (0,20) |
| Arch. 43, Bldg. Constr. -----   | 3               | (3,0)  | ✓ | Arch. 44, Bldg. Constr. -----   | 3               | (3,0)  |
| Arch. 45, Struct. Design -----  | 2               | (0,6)  | ✓ | Arch. 46, Struct. Design -----  | 2 $\frac{3}{4}$ | (0,8)  |
| Arch. 47, Mech. Plant -----     | 2               | (2,0)  | ✓ | Arch. 48, Profess. Prac. -----  | 1               | (1,0)  |
| Arch. 49, Life Drawing -----    | $\frac{3}{4}$   | (0,2)  | ✓ | Arch. 40, Life Drawing -----    | $\frac{3}{4}$   | (0,2)  |
| C. E. 47, Reinforced Conc.----- | 2               | (2,0)  | ✓ | Arch. 40.5, Hist. of Art -----  | 2               | (2,0)  |
| *Econ. 23, Economics -----      | 2               | (2,0)  | ✓ | Sociol. 31, Sociology -----     | 2               | (2,0)  |
| M. S. 41, Military Science----- | 1               | (0,3)  | ✓ | M. S. 42, Military Science----- | $\frac{3}{4}$   | (0,2)  |
| Elective -----                  | 2               | (2,0)  | ✓ | Elective -----                  | 3               | (3,0)  |
|                                 |                 |        |   | <hr/>                           |                 |        |
|                                 |                 |        |   | 21 $\frac{1}{2}$                |                 |        |
|                                 |                 |        |   | <hr/>                           |                 |        |
|                                 |                 |        |   | 21 $\frac{3}{4}$                |                 |        |

\*Offered both semesters.

## CHEMICAL ENGINEERING

This course combines a well-rounded course in Chemistry with fundamental courses in Physics, Mechanics, and engineering subjects with the view of training men for work in the chemical industries or industries in which considerable chemical engineering processes are used. Competition is compelling the industries to abandon rule-of-thumb methods more and more. They are using men trained in the principles of Chemical Engineering to design their plans and to supervise the operation of the various processes.

The Chemical engineer solves the engineering problems arising in connection with the chemical industry or chemical processes. He is interested in economical production as well as in turning out a good product, and naturally is interested in discovering where losses occur, in developing uses for by-products, and in recovering and utilizing waste products. It is hardly possible in a four-year course to cover well this field both in chemistry and Engineering, and it is strongly recommended that those desiring rapid advancement to responsible positions take an additional year in Chemical Engineering.

Graduates in Chemical Engineering are qualified for employment as chemists in manufacturing plants, as chemists in industrial research, as gas plant chemists and superintendents, sanitary and municipal engineers, manufacturers of chemicals, and as promoters of the chemical industry.

# CHEMICAL ENGINEERING

## FRESHMAN YEAR

### First Semester

|                                  |     |       |
|----------------------------------|-----|-------|
| Chemistry 13, General            | 4   | (3,3) |
| Drawing 13, Engr. Drawing        | 1½  | (0,4) |
| English 15, Comp. and Amer. Lit. | 3   | (3,0) |
| *History 14, Amer. Ec. Hist.     | 2   | (2,0) |
| Math. 11, Trigonometry           | 5   | (5,0) |
| M. E. 11, or M. E. 12 and 14     | 2   | (0,6) |
| M. S. 11, Military Science       | 1   | (0,3) |
|                                  | 18½ |       |

### Second Semester

|                                           |     |       |
|-------------------------------------------|-----|-------|
| Chemistry 14, General                     | 4   | (3,3) |
| Drawing 14, Engr. Drawing                 | 1½  | (0,4) |
| English 16, Comp. and Amer. Lit.          | 3   | (3,0) |
| *Gov. 12, Amer. Gov't. and Polit. Parties | 2   | (2,0) |
| Math. 12, Analytics & College Algebra     | 5   | (5,0) |
| M. E. 12 and 14, or M. E. 17, Shop        | 2   | (0,6) |
| M. S. 12, Military Science                | 1   | (0,3) |
|                                           | 18½ |       |

\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                 |     |       |
|---------------------------------|-----|-------|
| Chem. 23, Qualitative           | 4½  | (2,8) |
| Drawing 25, Mechanical          | ½   | (0,2) |
| English 21, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 21, Dif. Calculus         | 5   | (5,0) |
| Physics 21 and 23, General      | 5   | (4,3) |
| M. S. 21, Military Science      | 1   | (0,3) |
|                                 | 18½ |       |

|                                 |     |       |
|---------------------------------|-----|-------|
| Chem. 24, Quantitative          | 4½  | (2,8) |
| Drawing 26, Elem. Des. and Kin. | ½   | (0,2) |
| English 22, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 22, Int. Calcul.          | 5   | (5,0) |
| Physics 22 and 24, General      | 5   | (4,3) |
| M. S. 22, Military Science      | 1   | (0,3) |
|                                 | 18½ |       |

## JUNIOR YEAR

|                                 |     |       |
|---------------------------------|-----|-------|
| Chem. 25, Organic               | 4½  | (3,4) |
| Chem. 33, Quantitative          | 1½  | (0,4) |
| Drawing 31, Kin. & Mach. Design | 1   | (0,3) |
| English 31, Public Speaking     | 2   | (2,0) |
| Econ. 23, Economics             | 2   | (2,0) |
| M. E. 23, Mach. Shop            | 1   | (0,3) |
| M. E. 31, Mechanics             | 3   | (3,0) |
| M. E. 35, Thermodynamics        | 3   | (3,0) |
| M. S. 31, Military Science      | 1   | (0,3) |
| Elective                        | 2   | (2,0) |
|                                 | 20½ |       |

|                             |     |       |
|-----------------------------|-----|-------|
| Chem. 26, Organic           | 4½  | (3,4) |
| Drawing 32, Mach. Des.      | 1   | (0,3) |
| English 32, Bus. Law        | 2   | (2,0) |
| M. E. 24, Mach. Shop        | 1   | (0,3) |
| M. E. 31, Mechanics         | 3   | (3,0) |
| M. E. 33 & 33a, Mech. Engr. | 3½  | (3,2) |
| M. S. 32, Military Science  | ½   | (0,2) |
| Elective                    | 3   |       |
|                             | 18½ |       |

## SENIOR YEAR

|                            |     |       |
|----------------------------|-----|-------|
| Chem. 35, Organic          | 2½  | (2,2) |
| Chem. 31, Physical         | 4½  | (3,4) |
| Chem. 53, Industrial       | 2   | (2,0) |
| Geol. 33, Mineralogy       | 2½  | (2,2) |
| Ch. Engr. 41               | 3   | (3,0) |
| M. S. 41, Military Science | 1   | (0,3) |
| Elective                   | 4   |       |
|                            | 19½ |       |

|                            |     |       |
|----------------------------|-----|-------|
| Chem. 32, Physical         | 4½  | (3,4) |
| Chem. 54, Industrial       | 2   | (2,0) |
| Geol. 34, Mineralogy       | 2½  | (2,2) |
| E. E. 36, Elec. Mach.      | 3½  | (3,2) |
| M. S. 42, Military Science | ½   | (0,2) |
| Elective                   | 4   |       |
|                            | 17½ |       |

## CIVIL ENGINEERING

This course is intended to prepare young men for entrance upon professional practice in civil engineering, and also to meet

the needs of those who, having been engaged in engineering work without a course of instruction, desire to equip themselves for successful competition with those who have had such instruction.

In connection with the technical studies, liberal training is given in English, history, economics, pure mathematics, and the physical sciences. The course will also be found to embrace a considerable amount of drawing, shop work, and short courses in electrical engineering and mechanical engineering.

The distinctive work pursued by students in this course includes the field and office work of surveying and leveling; topographic surveying and drafting; the location and construction of railroads and highways, bridges, and other related structures; investigation of the strength of the materials of construction and the theories involved in their use; masonry construction; foundations on land and under water; a particular study of highway engineering, including a laboratory course covering all the standard tests of highway material, both bituminous and non-bituminous; municipal and sanitary engineering, including the study of bacteriology, water-supply, sewerage and drainage; and a brief study of engineering law relating to contracts and specifications. Actual design, as well as analytic investigation, is given in all cases.

A summer surveying camp of two weeks duration is required between the sophomore and junior years.

## CIVIL ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                                    |    |       |
|------------------------------------|----|-------|
| Chemistry 11, General              | 3½ | (3,2) |
| Drawing 13, Engr. Drawing          | 1½ | (0,4) |
| English 15, Comp. and Amer. Lit.   | 3  | (3,0) |
| *History 14, Amer. Ec. Hist.       | 2  | (2,0) |
| Math. 11, Trigonometry             | 5  | (5,0) |
| M. E. 17, or M. E. 12 and 14, Shop | 2  | (0,6) |
| M. S. 11, Military Science         | 1  | (0,3) |

18

#### *Second Semester*

|                                          |    |       |
|------------------------------------------|----|-------|
| Chemistry 12, General                    | 3½ | (3,2) |
| Drawing 14, Engr. Drawing                | 1½ | (0,4) |
| English 16, Comp. and Amer. Lit.         | 3  | (3,0) |
| *Gov. 12, Amer. Gov't and Polit. Parties | 2  | (2,0) |
| Math. 12, Analytics & College Algebra    | 5  | (5,0) |
| M. E. 12 and 14, or M. E. 17, Shop       | 2  | (0,6) |
| M. S. 12, Military Science               | 1  | (0,3) |

18

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\*Modern Language 3 Hr. Option.



## SOPHOMORE YEAR

|                                 |    |       |                                 |    |       |
|---------------------------------|----|-------|---------------------------------|----|-------|
| C. E. 21, Surveying -----       | 3½ | (2,4) | C. E. 22, Surveying -----       | 3½ | (3,2) |
| Drawing 25, Mechanical ----     | ¾  | (0,2) | Drawing 28, Structural ----     | ¾  | (0,2) |
| English 21, Lit. and Adv. ----- |    |       | English 22, Lit. and Adv. ----- |    |       |
| Comp. -----                     | 2  | (2,0) | Comp. -----                     | 2  | (2,0) |
| Math. 21, Dif. Calculus -----   | 5  | (5,0) | Math. 22, Int. Calculus -----   | 5  | (5,0) |
| M. S. 21, Military Science----- | 1  | (0,3) | M. S. 22, Military Science----- | 1  | (0,3) |
| Physics 21, 23, General-----    | 5  | (4,3) | Physics 22, 24, General -----   | 5  | (4,3) |
| *Elective -----                 | 2  | (2,0) | *Elective -----                 | 2  | (2,0) |
| <hr/>                           |    |       | <hr/>                           |    |       |
| 19                              |    |       | 19½                             |    |       |
| C. E. 30—Summer Surveying Camp. |    |       | Two weeks, 3 credits.           |    |       |

## JUNIOR YEAR

|                                  |    |       |                                 |    |       |
|----------------------------------|----|-------|---------------------------------|----|-------|
| C. E. 31, Mechanics -----        | 3  | (3,0) | C. E. 32, Mech. of Matr.-----   | 3  | (3,0) |
| C. E. 35, Route Surveying-----   | 3  | (3,0) | C. E. 34, Graphic Statics-----  | 1½ | (1,2) |
| C. E. 37, Structural Probs.----- | 1½ | (0,4) | C. E. 36, Roads & Pavements.4   |    | (3,3) |
| English 31, Pub. Speaking -----  | 2  | (2,0) | C. E. 38, Struc. Problems.----- | 2  | (0,6) |
| M. E. 33, Mech. Engr. -----      | 3  | (3,0) | E. E. 36, Elec. Mach. -----     | 3½ | (3,2) |
| M. E. 33a, Lab. -----            | ¾  | (0,2) | M. S. 32, Military Science----- | ¾  | (0,2) |
| M. S. 31, Military Science-----  | 1  | (0,3) | Elective -----                  | 3  |       |
| Physics 33, Astronomy -----      | 2  | (2,0) | <hr/>                           |    |       |
| Elective -----                   | 2  |       | 18                              |    |       |
| <hr/>                            |    |       |                                 |    |       |
| 18                               |    |       |                                 |    |       |

## SENIOR YEAR

|                                    |   |       |                                 |   |       |
|------------------------------------|---|-------|---------------------------------|---|-------|
| C. E. 41, Struct. Design -----     | 3 | (2,3) | Bact. 42, Sanitary -----        | 3 | (2,3) |
| C. E. 43, Road Mat. and Test.----- | 1 | (0,3) | English 32, Bus. Law -----      | 2 | (2,0) |
| C. E. 45, Reinf. Concrete -----    | 3 | (2,3) | C. E. 42, Bridge Des. -----     | 4 | (2,6) |
| C. E. 49, Hydraulics -----         | 3 | (3,0) | C. E. 44, Road M. T. Lab.-----  | 1 | (0,3) |
| Econ. 23, Economics -----          | 2 | (2,0) | C. E. 46, Mun. and San. -----   |   |       |
| Geology 43, Engr. Geology-----     | 2 | (2,0) | Engr. -----                     | 5 | (5,0) |
| M. E. 42a, Hydro. & Mat. Lab. ¾    |   | (0,2) | M. S. 42, Military Science----- | ¾ | (0,2) |
| M. S. 41, Military Science-----    | 1 | (0,3) | Elective -----                  | 3 |       |
| Elective -----                     | 2 |       | <hr/>                           |   |       |
| <hr/>                              |   |       | 18½                             |   |       |
| 17¾                                |   |       |                                 |   |       |

## ELECTRICAL ENGINEERING

The field of electrical engineering embraces the generation, transmission, and utilization of electrical energy for domestic and industrial commercial purposes. It also includes illumination, transportation, communication, and the design, manufacture, and sale of electrical machines and devices.

The curriculum for students in electrical engineering contains a selected series of studies which enables the student to enter any division of the field of electrical engineering.

The first two years are devoted largely to sciences and other subjects prerequisite to the general field of engineering. The

\*Suggest consultation with head of Department.

last two years are more specialized and embrace those technical courses which are pertinent to electrical engineering.

The theoretical courses in science and engineering are paralleled and reinforced by strong laboratory courses through which the student may make his own determinations of the characteristics of engineering materials and machines. The laboratories are well equipped for this work.

The entire course is directed toward the development of initiative and self-reliance, so that the student may enter his chosen field with reasonable hope of usefulness and success.

## ELECTRICAL ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                                    |                 |       |
|------------------------------------|-----------------|-------|
| Chemistry 11, General              | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 13, Engr. Drawing          | 1 $\frac{1}{3}$ | (0,4) |
| English 15, Comp. and Amer. Lit.   | 3               | (3,0) |
| *History 14, Amer. Ec. Hist.       | 2               | (2,0) |
| Math. 11, Trigonometry             | 5               | (5,0) |
| M. E. 17, or M. E. 12 and 14, Shop | 2               | (0,6) |
| M. S. 11, Military Science         | 1               | (0,3) |
|                                    | 18              |       |

#### *Second Semester*

|                                         |                 |       |
|-----------------------------------------|-----------------|-------|
| Chem. 12, General                       | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 14, Engr. Drawing               | 1 $\frac{1}{3}$ | (0,4) |
| English 16, Comp. and Amer. Lit.        | 3               | (3,0) |
| Gov. 12, Amer. Gov't and Polit. Parties | 2               | (2,0) |
| Math. 12, Analytics and College Algebra | 5               | (5,0) |
| M. E. 12 and 14, or M. E. 17, Shop      | 2               | (0,6) |
| M. S. 12, Military Science              | 1               | (0,3) |
|                                         | 18              |       |

\*Modern Language 3 Hr. Option.

### SOPHOMORE YEAR

|                                 |                  |       |
|---------------------------------|------------------|-------|
| Drawing 25, Mechanical          | 3 $\frac{1}{3}$  | (0,2) |
| C. E. 23, Sur.                  | 1 $\frac{2}{3}$  | (1,2) |
| Econ. 23, Economics             | 2                | (2,0) |
| English 21, Lit. and Adv. Comp. | 2                | (2,0) |
| Math. 21, Dif. Calculus         | 5                | (5,0) |
| M. E. 23, Mach. Shop            | 1                | (0,3) |
| M. S. 21, Military Science      | 1                | (0,3) |
| Physics 21 and 23, General      | 5                | (4,3) |
|                                 | 18 $\frac{1}{4}$ |       |

|                                 |                  |       |
|---------------------------------|------------------|-------|
| Drawing 26, Elem. Des. & Kin.   | 3 $\frac{1}{3}$  | (0,2) |
| E. E. 22, D. C. Circuits        | 2                | (2,0) |
| English 22, Lit. and Adv. Comp. | 2                | (2,0) |
| Math. 22, Int. Calculus         | 5                | (5,0) |
| M. E. 24, Mach. Shop            | 1                | (0,3) |
| M. S. 22, Military Science      | 1                | (0,3) |
| Physics 22 and 24, General      | 5                | (4,3) |
| Elective                        | 2                | (2,0) |
|                                 | 18 $\frac{3}{4}$ |       |

### JUNIOR YEAR

|                                 |                  |       |
|---------------------------------|------------------|-------|
| Drawing 31, Kin. & Mach. Design | 1                | (0,3) |
| E. E. 31, D. C. Machinery       | 5                | (5,0) |
| E. E. 31a, Elec. Measurement    | 1 $\frac{1}{3}$  | (0,4) |
| Eng. 31, Public Speaking        | 2                | (2,0) |
| M. E. 31, Mechanics             | 3                | (3,0) |
| M. E. 36, Mech. Engr.           | 3                | (3,0) |
| M. S. 31, Military Science      | 1                | (0,3) |
| Elective                        | 2                |       |
|                                 | 18 $\frac{1}{4}$ |       |

|                            |                 |       |
|----------------------------|-----------------|-------|
| Drawing 32, Mach. Des.     | 1               | (0,3) |
| E. E. 32, A. C. Circuits   | 5               | (5,0) |
| E. E. 32a, Elec. Lab.      | 1 $\frac{1}{3}$ | (0,4) |
| M. E. 32, Mechanics        | 3               | (3,0) |
| M. E. 35, Thermodynamics   | 3               | (3,0) |
| M. E. 36b, Mech. Lab.      | 1               | (0,3) |
| M. S. 32, Military Science | 3 $\frac{1}{3}$ | (0,2) |
| Elective                   | 3               |       |
|                            | 18              |       |

## SENIOR YEAR

|                                  |       |                                             |       |
|----------------------------------|-------|---------------------------------------------|-------|
| E. E. 41, A. C. Mach.-----5      | (5,0) | E. E. 42, Elec. Engr. -----3                | (3,0) |
| E. E. 41a, Elec. Lab. -----2     | (1,3) | E. E. 42a, Elec. Lab. -----2                | (1,3) |
| E. E. 45, Elec. Design -----1    | (0,3) | E. E. 44, Power Trans. -----3               | (3,0) |
| E. E. 47, Electronics -----2     | (2,0) | E. E. 46, Elec. Design -----1               | (0,3) |
| M. E. 41, Mech. Engr. -----2     | (2,0) | English 32, Business Law ---2               | (2,0) |
| M. E. 41a, Mech. Lab. -----1     | (0,3) | M. E. 42.5, Hydraulics-----2                | (2,0) |
| M. E. 49, Mech. of Materials.3   | (3,0) | M. S. 42, Military Science--- $\frac{2}{3}$ | (0,2) |
| M. S. 41, Military Science-----1 | (0,3) | Elective -----5                             |       |
| Elective -----2                  |       |                                             |       |
| <hr/> 19                         |       | <hr/> 18 $\frac{2}{3}$                      |       |

## MECHANICAL ENGINEERING

The course in mechanical engineering is designed to give the graduate as broad training as possible and to fit him for some specific type of work.

It embraces practically all forms of engineering which have for their objects the application of the forces of nature to the accomplishment of the processes of industry. The course is designed to give an intimate knowledge of the materials used in engineering, the laws of mechanics, and the characteristics of various types of machinery.

The shop courses embrace wood work, forge work, foundry and machine work. The purpose of this instruction is not to turn out skilled workmen but to train those faculties of mind which may best be reached through the work of the hand, and to give the student a clear knowledge of the characteristics and possibilities of the materials used in engineering.

Considerable time is given to the study of the laws of the physical sciences, in such subjects as physics, chemistry, mechanics, electricity and magnetism, and thermodynamics.

During the fourth year stress is laid on the application of the fundamental principles already covered so that the graduate may be able to design or manage those types of machines which ordinarily come under the supervision of the mechanical engineer.

The mechanical engineer should have a liberal education; therefore, in addition to the regular technical work, training is given in English, history, economics, civics, and related subjects.

## MECHANICAL ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                                    |                 |       |
|------------------------------------|-----------------|-------|
| Chemistry 11, General              | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 13, Engr. Drawing          | 1 $\frac{1}{3}$ | (0,4) |
| English 15, Comp. and Amer. Lit.   | 3               | (3,0) |
| *History 14, Amer. Ec. Hist.       | 2               | (2,0) |
| Math. 11, Trigonometry             | 5               | (5,0) |
| M. E. 17, or M. E. 12 and 14, Shop | 2               | (0,6) |
| M. S. 11, Military Science         | 1               | (0,3) |
|                                    | 18              |       |

*Second Semester*

|                                           |                 |       |
|-------------------------------------------|-----------------|-------|
| Chemistry 12, General                     | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 14, Engr. Drawing                 | 1 $\frac{1}{3}$ | (0,4) |
| English 16, Comp. and Amer. Lit.          | 3               | (3,0) |
| *Gov. 12, Amer. Gov't. and Polit. Parties | 2               | (2,0) |
| Math. 12, Analytics and College Algebra   | 5               | (5,0) |
| M. E. 12 and 14, or M. E. 17, Shop        | 2               | (0,6) |
| M. S. 12, Military Science                | 1               | (0,3) |
|                                           | 18              |       |

\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                 |                  |       |
|---------------------------------|------------------|-------|
| Drawing 25, Mechanical          | 2 $\frac{3}{4}$  | (0,2) |
| Econ. 23, Economics             | 2                | (2,0) |
| English 21, Lit. and Adv. Comp. | 2                | (2,0) |
| Math. 21, Dif. Calculus         | 5                | (5,0) |
| M. E. 23, Mach. Shop            | 1                | (0,3) |
| M. S. 21, Military Science      | 1                | (0,3) |
| Physics 21 and 23, General      | 5                | (4,3) |
| Elective                        | 2                |       |
|                                 | 18 $\frac{3}{4}$ |       |

|                                 |                  |       |
|---------------------------------|------------------|-------|
| Drawing 26, Elem. Des. and Kin. | 2 $\frac{3}{4}$  | (0,2) |
| C. E. 23, Surveying             | 1 $\frac{2}{3}$  | (1,2) |
| English 22, Lit. and Adv. Comp. | 2                | (2,0) |
| Math. 22, Int. Calculus         | 5                | (5,0) |
| M. E. 24, Mach. Shop            | 1                | (0,3) |
| M. S. 22, Military Science      | 1                | (0,3) |
| Physics 22 and 24, General      | 5                | (4,3) |
| Elective                        | 2                |       |
|                                 | 18 $\frac{1}{2}$ |       |

## JUNIOR YEAR

|                               |    |       |
|-------------------------------|----|-------|
| Drawing 31, Kin. & Mach. Des. | 1  | (0,3) |
| E. E. 33, D. C. Machinery     | 4  | (4,0) |
| E. E. 33a, Elec. Measurements | 1  | (0,3) |
| English 31, Public Speaking   | 2  | (2,0) |
| M. E. 31, Mechanics           | 3  | (3,0) |
| M. E. 35, Thermodynamics      | 3  | (3,0) |
| M. E. 35a, Mech. Lab.         | 1  | (0,3) |
| M. S. 31, Military Science    | 1  | (0,3) |
| Elective                      | 2  |       |
|                               | 18 |       |

|                            |                  |       |
|----------------------------|------------------|-------|
| Drawing 32, Mach. Design   | 1                | (0,3) |
| E. E. 34, A. C. Circuits   | 4                | (4,0) |
| E. E. 34a, Elec. Lab.      | 1                | (0,3) |
| M. E. 38, Ind. Engr.       | 2                | (2,0) |
| M. E. 32, Mechanics        | 3                | (3,0) |
| M. E. 36, Mech. Engr.      | 3                | (3,0) |
| M. E. 36a, Mech. Lab.      | 1                | (0,3) |
| M. S. 32, Military Science | 3 $\frac{1}{2}$  | (0,2) |
| Elective                   | 3                |       |
|                            | 18 $\frac{3}{4}$ |       |

## SENIOR YEAR

|                                |                  |       |
|--------------------------------|------------------|-------|
| E. E. 43, A. C. Machinery      | 3                | (3,0) |
| E. E. 43a, Elec. Lab.          | 1                | (0,3) |
| M. E. 43, Power Plants         | 3                | (3,0) |
| M. E. 43a, Mech. Lab.          | 1 $\frac{1}{3}$  | (0,4) |
| *M. E. 45, Gas Engines         | 2                | (2,0) |
| *M. E. 45a, Design             | 1                | (0,3) |
| M. E. 49, Mechan. of Materials | 3                | (3,0) |
| M. S. 41, Military Science     | 1                | (0,3) |
| Elective                       | 2                |       |
|                                | 17 $\frac{1}{3}$ |       |

|                            |                  |       |
|----------------------------|------------------|-------|
| English 32, Business Law   | 2                | (2,0) |
| M. E. 42, Hydraulics       | 3                | (3,0) |
| M. E. 42a, Mech. Lab.      | 3 $\frac{1}{2}$  | (0,2) |
| M. E. 44, Power Plants     | 3                | (3,0) |
| M. E. 44a, Lab.            | 1 $\frac{1}{2}$  | (0,4) |
| *M. E. 46, Steam Turbines  | 2                | (2,0) |
| *M. E. 46a, Design         | 1                | (0,3) |
| M. S. 42, Military Science | 3 $\frac{1}{2}$  | (0,2) |
| **Elective                 | 5                |       |
|                            | 18 $\frac{3}{4}$ |       |

\*M. E. 47, Heat and Vent. 2 (2,0)  
 \*M. E. 47a, Design 1 (0,3)

\*M. E. 48, Heat and Vent. 2 (2,0)  
 \*M. E. 48a, Design 1 (0,3)

\*M. E. 47, 47a, 48, 48a are optional in place of M. E. 45, 45a, 46, 46a.

\*\*Two electives must be approved by head of Department.



## SCHOOL OF GENERAL SCIENCE

The four-year course in the School of General Science is planned to meet the needs of students desiring general training in the sciences. It is recommended for men preparing for the professions and is also available for capable students who, after trial, find themselves unsuited for the technical and vocational courses.

### PRE-MEDICAL COURSE

Students preparing for the study of medicine are advised to complete four years of undergraduate work before entering medical school. Clemson College, however, will award the degree of Bachelor of Science in General Science to a student who, after completing the first three years of the General Science course, is graduated from a medical college approved by the American Medical Association, provided that while at Clemson he chose only approved electives and passed Chemistry 25 and 26 and Economics 23 and 24 in his sophomore year and Sociology 31 in his junior year. Before choosing electives the pre-medical student should consult the medical college of his choice in regard to specific requirements. He is expected to include in his electives organic chemistry (Chemistry 25, 26), other advanced courses in chemistry, advanced zoology (Zoology 33), and such other courses as are recommended for the preparation for the study of medicine.

### PRE-PROFESSIONAL COURSE

To meet the needs of students preparing for the professions other than medicine, Clemson College will award the degree of Bachelor of Science in General Science to a student who, after completing a modified form of the first three years of the General Science course, is graduated from a professional school of good standing, approved by a committee of the faculty of the School of General Science. Students registering under this provision must in the junior year include Economics 23 and 24 and Sociology 31 and must confine their electives to the approved groups.

## GENERAL SCIENCE

## FRESHMAN YEAR

*First Semester*

|                                 |          |
|---------------------------------|----------|
| English 15, Comp. and Am.       |          |
| Lit. -----                      | 3 (3,0)  |
| History 14, Am. Econ.           |          |
| History -----                   | 2 (2,0)  |
| Botany 11, General -----        | 3½ (2,4) |
| Chemistry 11, General -----     | 3½ (3,2) |
| M. S. 11, Military Science----- | 1 (0,3)  |
| Modern Language -----           | 3 (3,0)  |
| Math. 17 -----                  | 3 (3,0)  |

19

*Second Semester*

|                                 |          |
|---------------------------------|----------|
| English 16, Comp. and Am.       |          |
| Lit. -----                      | 3 (3,0)  |
| Gov. 12, Amer. Gov't -----      | 2 (2,0)  |
| Zool. 12, Gen. Zoology -----    | 3½ (2,4) |
| Chemistry 12, General -----     | 3½ (3,2) |
| M. S. 12, Military Science----- | 1 (0,3)  |
| Modern Language -----           | 3 (3,0)  |
| Math. 18 -----                  | 3 (3,0)  |

19

## SOPHOMORE YEAR

|                                 |          |
|---------------------------------|----------|
| English 21, Lit. and Adv.       |          |
| Comp. -----                     | 2 (2,0)  |
| Physics 11, General -----       | 3½ (3,2) |
| M. S. 21, Military Science----- | 1 (0,3)  |
| Modern Language (Cont.)-----    | 3 (3,0)  |
| *Geology 23, or Natural         |          |
| Science -----                   | 3 (3,0)  |
| *Math. 21 or Approved           |          |
| Elective -----                  | 5 (5,0)  |

17½-20

|                                 |          |
|---------------------------------|----------|
| English 22, Lit. and Adv.       |          |
| Comp. -----                     | 2 (2,0)  |
| Physics 12, General -----       | 3½ (3,2) |
| M. S. 22, Military Science----- | 1 (0,3)  |
| Modern Language (Cont.)-----    | 3 (3,0)  |
| *Nat. Science or Approved       |          |
| Elect. -----                    | 3 (3,0)  |
| *Math. 22, or Approved          |          |
| Elective -----                  | 5 (5,0)  |

17½-20

## JUNIOR YEAR

|                                    |         |
|------------------------------------|---------|
| English 31, Public Speaking-----   | 2 (2,0) |
| Psychol. 35, Psychology -----      | 2 (2,0) |
| History 31, Hist. of Civiliz.----- | 3 (3,0) |
| M. S. 31, Military Science-----    | 1 (0,3) |
| *Approved Elective -----           | 6-8     |
| *Free Elective -----               | 3       |

18-20

|                                    |         |
|------------------------------------|---------|
| English 32, Business Law-----      | 2 (2,0) |
| Psychol. 36, Psychology -----      | 3 (2,2) |
| History 32, Hist. of Civiliz.----- | 3 (3,0) |
| M. S. 32, Military Science-----    | ¾ (0,2) |
| *Approved Elective -----           | 6-8     |
| *Free Elective -----               | 3½      |

18-20

## SENIOR YEAR

|                                 |         |
|---------------------------------|---------|
| Econ. 23, Economics -----       | 2 (2,0) |
| M. S. 41, Military Science----- | 1 (0,3) |
| *Approved Elective -----        | 10-11½  |
| *Free Elective -----            | 5       |
| English 50, Thesis -----        | ¾ (0,2) |

18½-20

|                                 |         |
|---------------------------------|---------|
| Econ. 24, Economics -----       | 2 (2,0) |
| Sociol. 31, Sociology -----     | 2 (2,0) |
| M. S. 42, Military Science----- | ¾ (0,2) |
| *Approved Elective -----        | 8-10    |
| *Free Elective -----            | 5½      |

18-20

\*Pre-Medical Students see page 81.

*Approved Electives.* All courses offered by the following departments: Agricultural economics, botany and bacteriology, chemistry, economics and government, psychology and sociology, English, geology and mineralogy, history, mathematics, foreign language, physics, religion, vocational education, and zoology and entomology. Courses in the following subjects are also approved electives: Art appreciation, genetics, history of architecture, and history of art.

### ADDITIONAL REQUIREMENTS

For graduation in this course at least the second year of one foreign language must be completed in college.

Of the minimum of one hundred and forty-six semester credit hours required for graduation, not more than sixteen and two-thirds may be free electives. All other courses selected by the student must be from the list of approved electives. The approved electives must include at least eight hours, exclusive of required courses, in one of the following: calculus, chemistry, or physics; and at least eight hours, exclusive of required courses, in one of the following: economics and government and history, English, modern languages, or sociology and psychology.

### SCHOOL OF TEXTILES

The growth of the textile industry in the South has been phenomenal, and it offers many opportunities to young men for advancement to excellent positions of responsibility. At the same time there has more recently developed a very heavy demand for men specially trained in the different branches of the textile industry; namely, textile engineering, textile chemistry and dyeing, and weaving and designing. With increased competition, prices become lower and a higher quality of work is necessary in order to get the business. Increasing labor and material costs require greater economies and new and shorter processes. These results are possible through the cooperation of a competent technical staff.

The textile course in its entirety (see courses outlined below) has been developed to meet this demand for well-trained men to fill these positions. It has been cooperatively developed by many men who have spent years in the textile industry, right out in the mills, on the front line, studying these very problems and processes, and who are familiar with the type of training necessary for this work. The course has not been developed from the purely theoretical or academic standpoint.

Throughout the four years practical work with regular textile equipment in the college plant supplements the theory

taught. This is done with the view of combining theory and practice and developing in the student habits of accurate observation and some skill in manipulation of the machines involved. In this work special consideration is given to economy of time, precision of results, and attention to details, as well as to methods of fundamental importance.

These courses so equip the graduate that he may confidently look forward to a successful career provided he supplements his training with the necessary energy, application, and tact.

Students in the School of Textiles are encouraged to work in the industry during their vacation periods in order to get the practical mill experience which is necessary for advancement in the industry. This practical experience better enables the student to understand the theory underlying these manufacturing practices.

## TEXTILE ENGINEERING

The course in textile engineering is designed to give the student sound training, both theoretical and practical, in the sciences upon which manufacturing processes are based. It is a well-rounded course in that the strictly textile subjects are supplemented by related fundamental engineering subjects as well as by subjects of general educational value (See School of Textiles for complete write-up). All Yarn Manufacturing courses for freshmen, sophomores, and juniors are offered both semesters.

## TEXTILE ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                            |    |       |
|----------------------------|----|-------|
| Chemistry 11, General      | 3½ | (3,2) |
| Drawing 13, Engineering    | 1½ | (0,4) |
| English 15, Comp. & Am.    |    |       |
| Lit.                       | 3  | (3,0) |
| History 14, Am. Ec. Hist.  | 2  | (2,0) |
| Math. 11, Trigonometry     | 5  | (5,0) |
| M. E. 17, Woodwork         | ¾  | (0,2) |
| M. S. 11, Military Science | 1  | (0,3) |
| *Y. M. 11, Textiles        | 1½ | (1,2) |

18½

#### *Second Semester*

|                               |    |       |
|-------------------------------|----|-------|
| Chemistry 12, General         | 3½ | (3,2) |
| Drawing 14, Engineering       | 1½ | (0,4) |
| English 16, Comp. & Am.       |    |       |
| Lit.                          | 3  | (3,0) |
| Gov. 12, Am. Gov't. and       |    |       |
| Pol. Parties                  | 2  | (2,0) |
| Math. 12, Analytics & College |    |       |
| Algebra                       | 5  | (5,0) |
| M. S. 12, Military Science    | 1  | (0,3) |
| *W. D. 12, Textiles           | 1½ | (1,2) |

17½



## SOPHOMORE YEAR

|                                                    |                                                              |
|----------------------------------------------------|--------------------------------------------------------------|
| Drawing 25, Mechanical ---- $\frac{3}{8}$ (0,2)    | Drawing 26, Mechanical ---- $\frac{3}{8}$ (0,2)              |
| English 21, Lit. & Adv. -----2 (2,0)               | English 22, Lit. & Adv. -----2 (2,0)                         |
| Comp. -----2 (2,0)                                 | Comp. -----2 (2,0)                                           |
| Math. 23, Dif. Calculus -----3 (3,0)               | **W. D. 26 or Y. M. 24, Mill Problems -----2 (2,0)           |
| M. E. 23, Machine Shop -----1 (0,3)                | M. E. 24, Machine Shop -----1 (0,3)                          |
| M. S. 21, Military Science -----1 (0,3)            | M. S. 22, Military Science -----1 (0,3)                      |
| Physics 11, General -----3 $\frac{3}{8}$ (3,2)     | Physics 12, General -----3 $\frac{3}{8}$ (3,2)               |
| W. D. 21, Elementary Design -----2 (2,0)           | W. D. 22, Adv. Design -----2 (2,0)                           |
| W. D. 23, Weaving ----- $\frac{3}{8}$ (0,2)        | W. D. 24, Weaving -----1 (0,3)                               |
| *Y. M. 21, Pickers -----2 $\frac{3}{8}$ (2,2)      | *Y. M. 22, Cards & Drawing Frames -----2 $\frac{3}{8}$ (2,2) |
| **W. D. 25 or Y. M. 23, Mill Problems -----2 (2,0) | *Y. M. 28, Cotton Grading ----- $\frac{3}{8}$ (0,2)          |
| 18 $\frac{3}{8}$                                   | 16 $\frac{3}{8}$                                             |

## JUNIOR YEAR

|                                                     |                                                      |
|-----------------------------------------------------|------------------------------------------------------|
| †M. E. 31, Mechanics -----3 (3,0)                   | Eng. 32, Bus. Law -----2 (2,0)                       |
| E. E. 35, Elec. Mach. -----2 $\frac{3}{8}$ (2,2)    | M. E. 34, Mech. Engr. -----3 (3,0)                   |
| M. S. 31, Military Science -----1 (0,3)             | M. E. 34a, Mech. Engr. Lab. $\frac{3}{8}$ (0,2)      |
| T. Chem. 31, Tex. Chem. -----2 $\frac{3}{8}$ (2,2)  | M. S. 32, Military Science ----- $\frac{3}{8}$ (0,2) |
| W. D. 31, Design -----2 (2,0)                       | T. Chem. 32, Tex. Chem. -----2 $\frac{3}{8}$ (2,2)   |
| W. D. 33, Fabric Analysis -----1 (0,2)              | T. Chem. 46.5, Microscopy -----1 $\frac{1}{8}$ (1,1) |
| W. D. 35, Weaving ----- $\frac{3}{8}$ (0,2)         | W. D. 34, Fabric Analysis -----1 (0,2)               |
| *Y. M. 31, Roving Frames -----2 $\frac{3}{8}$ (2,2) | W. D. 36, Weaving ----- $\frac{3}{8}$ (0,2)          |
| Electives -----3                                    | *Y. M. 34, Spinning -----3 (2,3)                     |
| 18 $\frac{3}{8}$                                    | 18 $\frac{3}{8}$                                     |

## SENIOR YEAR

|                                                        |                                                      |
|--------------------------------------------------------|------------------------------------------------------|
| Econ. 23, Econ. -----2 (2,0)                           | Sociol. 31, Sociology -----2 (2,0)                   |
| Eng. 31, Public Speaking -----2 (2,0)                  | M. S. 42, Military Science ----- $\frac{3}{8}$ (0,2) |
| M. S. 41, Military Science -----1 (0,3)                | T. Chem. 42, Dyeing -----2 $\frac{3}{8}$ (2,2)       |
| T. Chem. 41, Dyeing -----2 $\frac{3}{8}$ (2,2)         | W. D. 44, Warp Preparation -----2 (2,0)              |
| W. D. 41, Jac. Weaving -----1 $\frac{3}{8}$ (1,2)      | W. D. 46, Weaving ----- $\frac{3}{8}$ (0,2)          |
| W. D. 43, Cost Finding -----3 (3,0)                    | W. D. 48, Knitting ----- $\frac{3}{8}$ (0,2)         |
| W. D. 45, Pattern Weaving ----- $\frac{3}{8}$ (0,2)    | Y. M. 42, Combers -----1 $\frac{3}{8}$ (1,2)         |
| Y. M. 43, Doubling & Draft. -----1 $\frac{3}{8}$ (1,2) | Y. M. 44, Mill Econ. -----2 (2,0)                    |
| Y. M. 50, Thesis -----1 (0,2)                          | W. D. 50, Thesis -----1 (0,2)                        |
| Electives -----2 $\frac{3}{8}$                         | Electives -----4 $\frac{3}{8}$                       |
| 18 $\frac{3}{8}$                                       | 18                                                   |

†Repeated second semester; approved option may be taken first semester.

\*\*Offered both semesters.

\*\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Textile Engineering.

## TEXTILE CHEMISTRY AND DYEING

The many new chemical processes now available for use in the bleaching, dyeing, and finishing of textiles are largely responsible for the present demand for chemists in the textile industry. Such processes when properly executed give new, novel and desirable results; they require, however, the careful supervision of technically trained men.

This four-year course has been planned to give a thorough training in the fundamental theories of chemistry and dyeing with special emphasis on the application of these theories to the practical accomplishments of the textile industry. (See School of Textiles for complete write-up.)

## TEXTILE CHEMISTRY AND DYEING

### FRESHMAN YEAR

#### First Semester

|                              |     |       |
|------------------------------|-----|-------|
| Chemistry 13, General        | 4   | (3,3) |
| Drawing 13, Engineering      | 1½  | (0,4) |
| English 15, Comp. & Am. Lit. | 3   | (3,0) |
| History 14, Am. Ec. Hist.    | 2   | (2,0) |
| Math. 11, Trigonometry       | 5   | (5,0) |
| M. E. 17, Woodwork           | ¾   | (0,2) |
| M. S. 11, Military Science   | 1   | (0,3) |
| *Y. M. 11, Textiles          | 1¾  | (1,2) |
|                              | 18¾ |       |

#### Second Semester

|                                       |    |       |
|---------------------------------------|----|-------|
| Chemistry 14, General                 | 4  | (3,3) |
| Drawing 14, Engineering               | 1½ | (0,4) |
| English 16, Comp. & Am. Lit.          | 3  | (3,0) |
| Gov. 12, Am. Gov't. and Pol. Parties  | 2  | (2,0) |
| Math. 12, Analytics & College Algebra | 5  | (5,0) |
| M. S. 12, Military Science            | 1  | (0,3) |
| *W. D. 12, Textiles                   | 1¾ | (1,2) |
|                                       | 18 |       |

### SOPHOMORE YEAR

|                              |     |       |
|------------------------------|-----|-------|
| Chem. 23, Qualitative        | 4¾  | (2,8) |
| Eng. 21, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 23, Diff. Calculus     | 3   | (3,0) |
| Physics 11, General          | 3¾  | (3,2) |
| W. D. 21, Elem. Design       | 2   | (2,0) |
| W. D. 23, Weaving            | ¾   | (0,2) |
| M. S. 21, Military Science   | 1   | (0,3) |
| *Y. M. 28, Cotton Grading    | ¾   | (0,2) |
|                              | 17¾ |       |

|                              |     |       |
|------------------------------|-----|-------|
| Chem. 24, Quantitative       | 4¾  | (2,8) |
| Eng. 22, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 24, Int. Calculus      | 3   | (3,0) |
| Physics 12, General          | 3¾  | (3,2) |
| W. D. 22, Adv. Design        | 2   | (2,0) |
| W. D. 24, Weaving            | 1   | (0,3) |
| M. S. 22, Military Science   | 1   | (0,3) |
|                              | 17½ |       |

\*Offered both semesters.

### JUNIOR YEAR

|                             |    |       |
|-----------------------------|----|-------|
| Chem. 31a, Physical         | 3  | (3,0) |
| Econ. 23, Economics         | 2  | (2,0) |
| Eng. 31, Pub. Speaking      | 2  | (2,0) |
| T. C. 35, Textile Chemistry | 5  | (4,3) |
| T. C. 47, Microscopy        | 1½ | (1,1) |
| M. S. 31, Military Science  | 1  | (0,3) |
| Electives                   | 4¾ |       |
|                             | 19 |       |

|                             |    |       |
|-----------------------------|----|-------|
| Chem. 32a, Physical         | 3  | (3,0) |
| Sociol. 31, Sociology       | 2  | (2,0) |
| Eng. 32, Business Law       | 2  | (2,0) |
| T. C. 38, Textile Chemistry | 5  | (4,3) |
| Chem. 33, Adv. Quantitative | 1½ | (0,4) |
| M. S. 32, Military Science  | ¾  | (0,2) |
| Chem. 46, Stoichiometry     | 2  | (2,0) |
| Electives                   | 3  |       |
|                             | 19 |       |

### SENIOR YEAR

|                            |    |       |
|----------------------------|----|-------|
| T. C. 41.5, Dyeing         | 5½ | (4,4) |
| T. C. 43, Cellulose        | 2  | (2,0) |
| T. C. 45, Textile Anal.    | 2  | (1,3) |
| Chem. 43, Colloids         | 2  | (2,0) |
| T. C. 33, Tech. Writing    | 1  | (1,0) |
| M. S. 41, Military Science | 1  | (0,3) |
| T. C. 50, Thesis           | 1  | (0,3) |
| Electives                  | 3¾ |       |
|                            | 18 |       |

|                            |    |       |
|----------------------------|----|-------|
| T. C. 42.5, Dyeing         | 5½ | (4,4) |
| T. C. 48, Synthetic Fibers | 2  | (2,0) |
| T. C. 46, Textile Anal.    | 2  | (1,3) |
| Chem. 44, Colloids         | 2  | (2,0) |
| T. C. 34, Tech. Writing    | 1  | (1,0) |
| M. S. 42, Military Science | ¾  | (0,2) |
| T. C. 51, Thesis           | 1  | (0,3) |
| Electives                  | 4  |       |
|                            | 18 |       |

## WEAVING AND DESIGNING

This course has been provided to meet a growing demand from those who desire special instruction relating to the weaving and designing of fabrics. Special attention is paid to decorative design, dobby design, Jacquard design, pattern weaving, and rayon processing. (See School of Textiles, for complete account).

## WEAVING AND DESIGNING

## FRESHMAN YEAR

(Same as Textile Engineering. See Page 84)

## SOPHOMORE YEAR

## First Semester

|                            |       |    |       |
|----------------------------|-------|----|-------|
| Drawing 25, Mechanical     | ----  | ¾  | (0,2) |
| English 21, Lit. & Adv.    |       |    |       |
| Comp.                      | ----- | 2  | (2,0) |
| Math. 23, Dif. Calculus    | ----  | 3  | (3,0) |
| M. E. 23, Machine Shop     | ----  | 1  | (0,3) |
| M. S. 21, Military Science | ----  | 1  | (0,3) |
| Physics 11, General        | ----- | 3½ | (3,2) |
| W. D. 21, Elem. Design     | ----  | 2  | (2,0) |
| W. D. 23, Weaving          | ----- | ¾  | (0,2) |
| *Y. M. 21, Pickers         | ----- | 2¾ | (2,2) |
| **W. D. 25 or Y. M. 23,    |       |    |       |
| Mill Problems              | ----- | 2  | (2,0) |

18¾

## Second Semester

|                            |       |    |       |
|----------------------------|-------|----|-------|
| Arch. 14, Drawing          | ----- | 1½ | (0,4) |
| English 22, Lit. & Adv.    |       |    |       |
| Comp.                      | ----- | ?  | (2,0) |
| M. E. 24, Machine Shop     | ----  | 1  | (0,3) |
| M. S. 22, Military Science | ----  | 1  | (0,3) |
| Physics 12, General        | ----- | 3¾ | (3,2) |
| W. D. 22, Advanced Des.    | ----- | 2  | (2,0) |
| W. D. 24, Weaving          | ----- | 1  | (0,3) |
| *Y. M. 22, Cards & Drawing |       |    |       |
| Frames                     | ----- | 2¾ | (2,2) |
| **W. D. 26 or Y. M. 24,    |       |    |       |
| Mill Problems              | ----- | 2  | (2,0) |
| *Y. M. 28                  | ----- | ¾  | (0,2) |

17½

## JUNIOR YEAR

|                               |       |    |       |
|-------------------------------|-------|----|-------|
| Arch. 23.5, Dec. Des. & Color | ----  | 1  | (0,3) |
| E. E. 35, Elec. Mach.         | ----- | 2¾ | (2,2) |
| M. S. 31, Military Science    | ----  | 1  | (0,3) |
| †M. E. 31, Mechanics          | ----- | 3  | (3,0) |
| W. D. 31, Dobby Design        | ----- | 2  | (2,0) |
| W. D. 33, Fabric Analysis     | ----  | 1  | (0,2) |
| W. D. 35, Weaving             | ----- | ¾  | (0,2) |
| W. D. 37, Rayon Processing    | ----- | 1½ | (1,2) |
| *Y. M. 31, Roving Frames      | ----- | 2¾ | (2,2) |
| Electives                     | ----- | 3  |       |

18¾

|                               |       |   |       |
|-------------------------------|-------|---|-------|
| Arch. 24.5, Dec. Des. & Color | ----  | 1 | (0,3) |
| English 32, Business Law      | ----- | 2 | (2,0) |
| M. E. 34, Mech. Engr.         | ----- | 3 | (3,0) |
| M. E. 34a, M. E. Lab.         | ----- | ¾ | (0,2) |
| M. S. 32, Military Science    | ----- | ¾ | (0,2) |
| W. D. 32, Adv. Dobby Des.     | ----- | 2 | (2,0) |
| W. D. 34, Fabric Analysis     | ----- | 1 | (0,2) |
| W. D. 36, Weaving             | ----- | ¾ | (0,2) |
| *Y. M. 34, Spinning           | ----- | 3 | (2,3) |
| Electives                     | ----- | 4 |       |

18

## SENIOR YEAR

|                             |       |    |       |
|-----------------------------|-------|----|-------|
| Arch. 33.5, Dec. Des. &     |       |    |       |
| Comp.                       | ----- | 1  | (0,3) |
| English 31, Public Speaking | ----- | 2  | (2,0) |
| Econ. 23, Econ.             | ----- | 2  | (2,0) |
| M. S. 41, Military Science  | ----  | 1  | (0,3) |
| T. Chem. 39, Dyeing         | ----- | ¾  | (0,2) |
| W. D. 41, Jacquard Weaving  | ----- | 1½ | (1,2) |
| W. D. 43, Cost Finding      | ----- | 3  | (3,0) |
| W. D. 45.5, Pattern Weaving | ----- | 2  | (0,6) |
| Y. M. 43, Doubling & Dftg.  | ----- | 1½ | (1,2) |
| Electives                   | ----- | 3¾ |       |

18¾

|                              |       |    |       |
|------------------------------|-------|----|-------|
| Sociol. 31, Sociology        | ----- | 2  | (2,0) |
| M. S. 42, Military Science   | ----- | ¾  | (0,2) |
| Text. Chem. 46.5, Microscopy | ----- | 1½ | (1,1) |
| Text. Chem. 40, Dyeing       | ----- | ¾  | (0,2) |
| W. D. 42, Jacquard Design    | ----- | 2½ | (1,4) |
| W. D. 44, Warp Preparation   | ----- | 2  | (2,0) |
| W. D. 46.5, Pattern Weaving  | ----- | 2  | (0,6) |
| W. D. 48, Knitting           | ----- | ¾  | (0,2) |
| W. D. 50, Thesis             | ----- | 1  | (0,2) |
| Y. M. 44, Mill Econ.         | ----- | 2  | (2,0) |
| Electives                    | ----- | 3½ |       |

18

\*Y. M. courses offered both semesters.

\*\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Weaving and Designing.

†Repeated second semester; approved option may be taken first semester.

## SCHOOL OF VOCATIONAL EDUCATION

The School of Vocational Education offers four-year curricula leading to the degree of Bachelor of Science in Vocational Agricultural Education, Education, Industrial Education, and Textile Industrial Education. Courses are also made available for students of the other Schools of the College. By making a proper program of studies it is possible for students to meet the professional requirements in subject matter and in education and to qualify for the teacher's certificate in this State. Students who are planning to teach in high schools are advised to plan not only their courses in education, but also their subject-matter courses so as to fulfill the State requirements for the particular type of work which they expect to teach in the state. (The office of the School of Vocational Education has a file of information on this subject.) Students who are interested are invited to consult the Dean and other members of the Vocational Education staff for information.

While employment cannot be guaranteed, the School of Vocational Education maintains a Teacher Placement Service with which students who desire aid in securing employment may register and from which superintendents of schools and other employers may receive assistance in communicating with, or interviewing prospective teachers. Both students and employers of teachers are invited to use this service. The Office of the Teacher Placement Service is in Room 103, Education Building.

## VOCATIONAL AGRICULTURAL EDUCATION

The curriculum in Agricultural Education is designed to give the student a cross-section of the types of agriculture in the State and to provide an opportunity to study agriculture from the standpoint of the teacher, the practical farmer, and the closely related agricultural business man where the farm as a unit is emphasized.

Professional training of the student is planned to provide an opportunity for the study of a cross-section of rural life and its organizations with particular emphasis on the contribution



of the public school. Students participate in community organizations as a part of their first-hand training. They are taught to cooperate with State and National organizations which affect rural life and agriculture directly and indirectly. This curriculum with the central aim on teaching is designed primarily to train students for the professional field of teaching vocational agriculture and other closely related fields in which a knowledge of the business of farming is essential, and in which skill in dealing with groups of people as well as with individuals is important.

Practice teaching in several subjects, in cooperation with the State Department of Education and nearby school systems, constitutes part of the student's training. Publishers of State-adopted textbooks have been invited to place copies of their publications on file in the Education library, and many have responded. These publications are available for examination by teachers and prospective teachers during the regular session of summer school.

One hundred forty semester hours of credit are required for graduation. Fourteen semester hours of free electives are allowed.

Teachers of agriculture and others who are interested in graduate training in Agriculture Education should procure a copy of the 1938 summer school catalog as soon as published. A number of the courses listed in the Agricultural Education curriculum and other appropriate courses in Agricultural Education will be offered in the 1938 summer session.

## AGRICULTURAL EDUCATION\*

### FRESHMAN YEAR

#### First Semester

|                            |         |       |
|----------------------------|---------|-------|
| Agr. 11, Field Crops       | -----3  | (3,0) |
| Bot. 13, Agricultural      | -----2½ | (2,2) |
| Chem. 11, General          | -----3½ | (3,2) |
| Drawing 11, Freehand       | -----½  | (0,2) |
| Eng. 15, Comp. & Am. Lit.  | ---3    | (3,0) |
| **Math. 17, First Year     |         |       |
| College Math.              | -----3  | (3,0) |
| M. S. 11, Military Science | ---1    | (0,3) |
| Voc. Ed. 11, Orientation   | ---1    | (1,0) |

18

#### Second Semester

|                            |         |       |
|----------------------------|---------|-------|
| A. H. 12, Types, Breeds &  |         |       |
| Mkt. Classes               | -----2½ | (2,2) |
| Bot. 14, Agricultural      | -----3½ | (2,4) |
| Chem. 12, General          | -----3½ | (3,2) |
| Draw. 12, Mechanical       | -----½  | (0,2) |
| Eng. 16, Comp. & Am. Lit.  | ---3    | (3,0) |
| **Gov. 16, Amer. Gov.      | ---3    | (3,0) |
| M. S. 12, Military Science | ---1    | (0,3) |

17½

\*A study is being made of the Agricultural Education Curriculum for the purpose of improving this course of study.

\*\*Offered both semesters.

## SOPHOMORE YEAR

|                                 |     |       |                                 |    |       |
|---------------------------------|-----|-------|---------------------------------|----|-------|
| Chem. 21, Agricultural -----    | 2½  | (2,2) | Ag. Ec. 22, Ele. Ag. Ec.-----   | 3  | (3,0) |
| Dairy 21, Intro. Dairying ----- | 2½  | (2,2) | Agr. 20, Soils -----            | 2½ | (2,2) |
| Eng. 21, Lit. & Adv. Comp.----- | 2   | (2,0) | Ag. Engr. 22, Farm Mach. or     |    |       |
| Geol. 21, Agricultural -----    | 3   | (3,0) | Chem. 22, Agricultural -----    | 2½ | (2,2) |
| M. S. 21, Military Science----- | 1   | (0,3) | Eng. 22, Lit. & Adv. Comp.----- | 2  | (2,0) |
| Physics 27, General -----       | 3½  | (3,2) | Hort. 22, General Hort. -----   | 3  | (2,3) |
| Zool. 21, General Zool. -----   | 2½  | (2,2) | M. S. 22, Military Science----- | 1  | (0,3) |
|                                 |     |       | Voc. Ed. 22, Intro. to Voc.     |    |       |
|                                 |     |       | Ed. -----                       | 1  | (1,0) |
|                                 |     |       | Electives -----                 | 3  |       |
|                                 | 17½ |       |                                 |    |       |
|                                 |     |       |                                 |    | 18½   |

## JUNIOR YEAR

|                                  |     |       |                                 |    |       |
|----------------------------------|-----|-------|---------------------------------|----|-------|
| Agr. 31, Fert. & Manures-----    | 2   | (2,0) | Ag. Ec. 32, Farm Org. 2½ or     |    |       |
| A. H. 31, Feeds & Feeding-----   | 3   | (3,0) | Agron. 30, Forage Crops-----    | 3  | (3,0) |
| Eng. 31, Public Speaking-----    | 2   | (2,0) | Agr. 42, Soil Fert. & Man-      |    |       |
| M. S. 31, Military Science-----  | 1   | (0,3) | agement (2) or A. H. 34,        |    |       |
| Voc. Ed. 31, Intro. Ag. Ed.----- | 3   | (1,6) | Pork Prod. -----                | 2½ | (2,2) |
| Electives -----                  | 5½  |       | M. S. 32, Military Science----- | ¾  | (0,2) |
|                                  |     |       | P. H. 32, Farm Poultry -----    | 2½ | (2,2) |
|                                  | 16½ |       | Voc. Ed. 34, Problems in        |    |       |
|                                  |     |       | Ag. Ed. -----                   | 3  | (3,0) |
|                                  |     |       | Electives -----                 | 4  |       |
|                                  |     |       |                                 |    | 16    |

## Suggested Electives:

|                                |    |       |
|--------------------------------|----|-------|
| Ag. Engr. 35, Motors & Power   |    |       |
| Mach. -----                    | 3  | (2,3) |
| A. H. 35, Meats -----          | 2  | (0,6) |
| Ag. Ec. 33, Stat. Meth.-----   | 3  | (3,0) |
| Dairy 31, Judging -----        | ¾  | (0,2) |
| Dairy 35, Feeding & Mgt. ----- | 2½ | (2,2) |
| Hort. 31, Plant Prop. -----    | 2½ | (2,2) |
| Bact. 31, General -----        | 3½ | (2,4) |
| Econ. 23, Economics -----      | 2  | (2,0) |

## Suggested Electives:

|                                 |    |       |
|---------------------------------|----|-------|
| A. H. 32, Judging -----         | ¾  | (0,2) |
| Agr. 32, Genetics -----         | 2½ | (2,2) |
| Ag. Ec. 34, Public Finance----- | 3  | (3,0) |
| Bot. 30, Plant Phys. -----      | 3½ | (2,4) |
| Econ. 24, Economics -----       | 2  | (2,0) |

## SENIOR YEAR

|                                 |           |       |                                    |    |        |
|---------------------------------|-----------|-------|------------------------------------|----|--------|
| Ag. Ec. 43, Agri. Finance (2)   |           |       | Hort. 52, Com. Pomology or         |    |        |
| or Agr. 45, Crop Nutrition----- | 2         | (2,0) | Hort. 54, Truck Crops -----        | 2½ | (2,2)  |
| Agr. 43, Farm Problems-----     | 2         | (2,0) | M. S. 42, Military Science-----    | ¾  | (0,2)  |
| Agr. 47, Adv. Crop Lab.-----    | ¾         | (0,2) | Voc. Ed. 40, Prac. Teach.-----     | 5  | (0,15) |
| Ag. Engr. 47, Soil Conserva-    |           |       | Voc. Ed. 42, Meth. in Ag. Ed.----- | 3  | (3,0)  |
| tion (2) or Dairy 35,           |           |       | *Electives -----                   | 5½ |        |
| Feeding & Mgt. -----            | 2½        | (2,2) |                                    |    |        |
| M. S. 41, Military Science----- | 1         | (0,3) |                                    |    | 17     |
| Vet. Sc. 41, Diseases of        |           |       |                                    |    |        |
| Animals -----                   | 2½        | (2,2) |                                    |    |        |
| Voc. Ed. 41, Pr. Voc. Ed.-----  | 4         | (1,9) |                                    |    |        |
| Electives -----                 | 3         |       |                                    |    |        |
|                                 | 17½ or 18 |       |                                    |    |        |

## Suggested Electives:

|                                  |    |       |
|----------------------------------|----|-------|
| Ag. Ec. 41, Pr. Mkt. -----       | 3  | (3,0) |
| Ag. Ec. 45, Farm Accounting----- | 2½ | (2,2) |
| Agr. 49, Plant Breeding -----    | 2½ | (2,2) |
| Agr. 53, Cotton -----            | 2  | (2,0) |
| Bot. 41, F. C. Diseases-----     | 2½ | (2,2) |
| Bot. 43, Orchard & Truck         |    |       |
| Crop Diseases -----              | 2½ | (2,2) |
| Hort. 44, Landscape Gard.-----   | 2½ | (2,2) |

## Suggested Electives:

|                                 |    |       |
|---------------------------------|----|-------|
| Ag. Ec. 40, Farm Movements----- | 3  | (3,0) |
| Ag. Ec. 42, Rural Soc. -----    | 3  | (3,0) |
| Ag. Ec. 44, Land Econ. -----    | 3  | (3,0) |
| Agr. 42, Soil Fert. & Mgt.----- | 2  | (2,0) |
| Agr. 44, Adv. Soil Lab. -----   | ¾  | (0,2) |
| Dairy 48, Nutrition -----       | 2  | (2,0) |
| P. H. 42, Adv. Poultry -----    | 2½ | (2,2) |
| Vet. Sc. 42, Diseases-----      | 2½ | (2,2) |
| Ent. 42, Econ. Ent.-----        | 2½ | (2,2) |
| Ent. 44, Beekeeping -----       | 2½ | (2,2) |

\*Students who have not had Gov. 16 must take Gov. 16 or 41.

## EDUCATION

The purpose of this curriculum is to train for high school teaching in the fields of science indicated below. The curriculum has been planned with the view of providing both subject matter and professional courses. It meets the State requirements for certification in South Carolina under the new regulations. The subject-matter fields are designated as majors and minors. The technical and vocational groups are included with the purpose of providing an occupational background for teachers. Free electives are included to permit the student to exercise his own choice in at least a part of his work. Students who desire to enter into the Vocational Agriculture field or the Industrial Education field should enroll in one of those specialized curricula. (See pages 88 and 92.)

For the degree of Bachelor of Science in Education the following grouping must be made: a major of 20 semester hours; a first minor of at least 12 semester hours; a second minor of at least 12 semester hours (the semester hours in the major and minor groups may include required subjects in these fields as indicated below); at least 12 semester hours in a vocational or technical field, and 14 semester hours free electives are also required. Other elections are subject to the approval of the Dean. A total of 136 semester hours is required for graduation. The groups of majors, minors, etc., are indicated below.

## EDUCATION

### FRESHMAN YEAR

#### *First Semester*

|                                |        |       |
|--------------------------------|--------|-------|
| Botany 13, Agricultural        | 2½     | (2,2) |
| Chemistry 11, General          | 3½     | (3,2) |
| English 15, Comp. and Am. Lit. | 3      | (3,0) |
| History 14, Am. Econ. Hist.    | 2      | (2,0) |
| Math. 11 or 17                 | 5 or 3 |       |
| M. S. 11, Military Science     | 1      | (0,3) |
| Vocational Education           | 2      |       |

19½ or 17½

#### *Second Semester*

|                                |        |       |
|--------------------------------|--------|-------|
| Botany 14, Agricultural        | 3½     | (2,4) |
| Chemistry 12, General          | 3½     | (3,2) |
| English 16, Comp. and Am. Lit. | 3      | (3,0) |
| Gov. 12, American Gov't.       | 2      | (2,0) |
| Math. 12 or 18                 | 5 or 3 |       |
| M. S. 12, Military Science     | 1      | (0,3) |

18 or 16

## SOPHOMORE YEAR

|                                   |       |                              |       |
|-----------------------------------|-------|------------------------------|-------|
| Bact. 31, General Bacteriology_3½ | (2,4) | Econ. 24, Economics_2        | (2,0) |
| English 21, Lit. and Adv.         |       | English 22, Lit. and Adv.    |       |
| Comp._____2                       | (2,0) | Comp._____2                  | (2,0) |
| M. S. 21, Military Science_1      | (0,3) | M. S. 22, Military Science_1 | (0,3) |
| Chemistry 21 or 23_2½             | (2,2) | Chemistry 22 or 24_2½        | (2,2) |
| Zool. 21, Gen. Zoology_2½         | (2,2) | Physics 12 or 22-24_3½       | (3,2) |
| Physics 11 or 21-23_3½            | (3,2) |                              | or 5  |
| Voc. or Tech. group_3             |       | Voc. or Tech. group_3        |       |
|                                   |       | Free electives_2             |       |
| <hr/> 18½ or 20½                  |       | <hr/> 16½ or 18½             |       |

## JUNIOR YEAR

|                                |       |                               |       |
|--------------------------------|-------|-------------------------------|-------|
| English 31, Public Speaking_2  | (2,0) | Sociol. 31, Sociology_2       | (2,0) |
| M. S. 31, Military Science_1   | (0,3) | M. S. 32, Military Science_¾  | (0,2) |
| Voc. Ed. 35, Psychology_3      | (2,2) | Voc. Ed. 45, Teach. Science_3 | (3,0) |
| Voc. Ed. 39, Principles_3      | (3,0) | Voc. or Tech. group_3         |       |
| Ent. 31, Int. to Appl. Ent._2½ | (2,2) | Major and Minor_4             |       |
| Voc. or Tech. group_3          |       | Free electives_5              |       |
| Major and Minor_3½             |       |                               |       |
| <hr/> 18                       |       | <hr/> 17¾                     |       |

## SENIOR YEAR

|                                  |       |                                |       |
|----------------------------------|-------|--------------------------------|-------|
| Voc. Ed. 49, Health and P. Ed._2 | (2,0) | Voc. Ed. 47, Hist. & Philos.   |       |
| Voc. Ed. 51, Pract. Teaching_3   | (0,6) | of Education_2                 | (2,0) |
| Voc. Ed. 59, Administration_2    | (2,0) | Voc. Ed. 52, Pract. Teaching_3 | (0,6) |
| M. S. 41, Military Science_1     | (0,3) | M. S. 42, Military Science_¾   | (0,2) |
| Major and Minor_6                |       | Major and Minor_5½             |       |
| Free electives_2                 |       | Free electives_5               |       |
| <hr/> 16                         |       | <hr/> 16½                      |       |

- I MAJORS: 1. Biological Science, including Botany, Bacteriology, and Zoology.  
2. Chemistry. 3. Mathematics. 4. Physics.
- II MINORS: First Minor: One of these above not classed as major.  
Second Minor: Social Science, including History, Economics.
- III VOCATIONAL OR TECHNICAL GROUPS
1. Agriculture—Agronomy, Animal Husbandry, Bacteriology and Botany, Horticulture, Poultry.
  2. Textiles—Textile Chemistry, Weaving and Designing, Yarn Manufacturing.
  3. Engineering—Architecture, Drawing, Civil, Electrical, Mechanical.

## INDUSTRIAL EDUCATION

The curriculum in Industrial Education is intended to prepare students to teach industrial subjects, industrial arts, drawing, manual training, metal work, etc., in the high schools and to supervise the teaching of evening trade classes. The four-year curriculum includes the study of the major industries of South Carolina. The freshman year includes training in textiles. Students who complete this curriculum are prepared to teach manual training, drawing, woodwork, home mechanics, general subjects, and mathematics. A total of 140 semester hours is required for graduation. Provision is made for 14 semester hours free electives. A student may take as many as 20 hours per semester.



There has been, and is at present, an unusual demand for Clemson men trained in this field.

## INDUSTRIAL EDUCATION

### FRESHMAN YEAR

#### First Semester

|                                    |    |       |
|------------------------------------|----|-------|
| Chem. 11, General                  | 3½ | (3,2) |
| Drawing 13, Engineering            | 1½ | (0,4) |
| English 15, Comp. & Am. Lit.       | 3  | (3,0) |
| History 14, Am. Ec. Hist.          | 2  | (2,0) |
| Math. 17, First Year College Math. | 3  | (3,0) |
| M. E. 17, or 12 & 14, Shop         | 2  | (0,6) |
| M. S. 11, Military Science         | 1  | (0,3) |
| Voc. Ed. 11, Orientation           | 1  | (1,0) |
| Y. M. 11, Gen. Textiles            | 1½ | (1,2) |

18½

Summer industrial employment minimum of four weeks.

#### Second Semester

|                                    |    |       |
|------------------------------------|----|-------|
| Chem. 12, General                  | 3½ | (3,2) |
| Drawing 14, Engineering            | 1½ | (0,4) |
| Eng. 16, Comp. & Am. Lit.          | 3  | (3,0) |
| Gov. 12, Am. Gov. & Pol. Parties   | 2  | (2,0) |
| Math. 18, First Year College Math. | 3  | (3,0) |
| M. E. 12 & 14 or 17, Shop          | 2  | (0,6) |
| M. S. 12, Military Science         | 1  | (0,3) |
| W. D. 12, Gen. Textiles            | 1½ | (1,2) |

17½

### SOPHOMORE YEAR

|                            |    |       |
|----------------------------|----|-------|
| C. E. 23, Surveying        | 1½ | (1,2) |
| Draw. 25, Mechanical       | ¾  | (0,2) |
| Eng. 21, Lit. & Adv. Comp. | 2  | (2,0) |
| Econ. 23, Economics        | 2  | (2,0) |
| Math. 25, Industrial Math. | 3  | (3,0) |
| M. E. 22, Mat. of Engr.    | 2  | (2,0) |
| M. E. 23, Machine Shop     | 1  | (0,3) |
| M. S. 21, Military Science | 1  | (0,3) |
| Physics 21 & 23, General   | 5  | (4,3) |

18½

Summer industrial employment minimum of four weeks.

|                                         |   |       |
|-----------------------------------------|---|-------|
| Draw. 26, Mechanical                    | ¾ | (0,2) |
| Eng. 22, Lit. & Adv. Comp.              | 2 | (2,0) |
| Math. 26, Industrial Math.              | 3 | (3,0) |
| M. E. 24, Machine Shop                  | 1 | (0,3) |
| M. S. 22, Military Science              | 1 | (0,3) |
| Physics 22 & 24, General                | 5 | (4,3) |
| Voc. Ed. 22, Intro. Voc. Ed.            | 1 | (1,0) |
| Voc. Ed. 28, Obs. of Voc. Ind. Teaching | 1 | (0,2) |
| Electives                               | 2 |       |

16½

### JUNIOR YEAR

|                                    |    |       |
|------------------------------------|----|-------|
| Voc. Ed. 33.5, Art Metal Work      | 2  | (1,3) |
| Eng. 31, Public Speak.             | 2  | (2,0) |
| M. S. 31, Military Science         | 1  | (0,3) |
| Voc. Ed. 31.6, Ind. Arts           | 2½ | (2,2) |
| Voc. Ed. 35, Psychol. for Teachers | 3  | (2,2) |
| Voc. Ed. 61, Ind. Lab.             | 2  | (0,6) |
| Voc. Ed. 39, Prin. of Sec. Ed.     | 3  | (3,0) |
| Electives                          | 2  |       |

17½

|                                       |    |       |
|---------------------------------------|----|-------|
| Eng. 32, Business Law                 | 2  | (2,0) |
| M. E. 30, Welding                     | 2  | (1,3) |
| M. S. 32, Military Science            | ¾  | (0,2) |
| Voc. Ed. 32, Org. of Courses of Study | 3  | (3,0) |
| Voc. Ed. 32.6, Ind. Arts              | 2½ | (2,2) |
| Voc. Ed. 38, Teaching of Drawing      | 3  | (2,2) |
| Voc. Ed. 62, Ind. Lab.                | 2  | (0,6) |
| Electives                             | 3½ |       |

19

### SENIOR YEAR

|                                             |    |       |
|---------------------------------------------|----|-------|
| Arch. 41.5, Art Appreciation                | 2  | (2,0) |
| E. E. 35, Elec. Mach.                       | 2½ | (2,2) |
| *Sociol. 31, Sociology                      | 2  | (2,0) |
| Arch. 35, Bldg. Constr.                     | 3  | (3,0) |
| M. S. 41, Military Science                  | 1  | (0,3) |
| Voc. Ed. 55, Coordination Meth. in Voc. Ed. | 2  | (1,3) |
| Electives                                   | 3½ |       |

16

|                              |     |        |
|------------------------------|-----|--------|
| Arch. 42.5, Ind. Arts Design | ¾   | (0,2)  |
| E. E. 38, Voc. Electricity   | 1½  | (1,2)  |
| Arch. 36, Bldg. Constr.      | 2   | (2,0)  |
| M. S. 42, Military Science   | ¾   | (0,2)  |
| *Voc. Ed. 43, Pract. Teach.  | 5   | (0,10) |
| Voc. Ed. 46, Tech. of Teach. | 3   | (3,0)  |
| Electives                    | 3.5 |        |

16-18

\*Offered both semesters.

## TEXTILE INDUSTRIAL EDUCATION

This course has for its purpose the preparation of young men for positions of usefulness and responsibility in vocational departments of schools located in textile communities. The course includes instruction in the fundamental principles of education, engineering and the textile industry.

The prime purpose of the course is to prepare the students for positions as teachers of trade and industrial subjects and as principals of schools in mill communities as well as local supervisors of industrial education. Since the textile industry is the chief one in the state, this industry is given special prominence. The course is essentially a combination of instruction in the textile industry and the training of industrial teachers.

One hundred forty semester hours of credit are required for graduation. Fourteen semester hours of free electives are allowed.

## TEXTILE INDUSTRIAL EDUCATION

## FRESHMAN YEAR

*First Semester*

|                              |    |       |
|------------------------------|----|-------|
| Chem. 11, General            | 3½ | (3,2) |
| Drawing 13, Engineering      | 1½ | (0,4) |
| Eng. 15, Comp. & Am. Lit.    | 3  | (3,0) |
| Hist. 14, Am. Ec. Hist.      | 2  | (2,0) |
| Math. 17, First Year College |    |       |
| Math.                        | 3  | (3,0) |
| M. E. 17 or 12 & 14, Shop    | 2  | (0,6) |
| M. S. 11, Military Science   | 1  | (0,3) |
| Voc. Ed. 11, Orientation     | 1  | (1,0) |
| Y. M. 11, Gen. Textiles      | 1½ | (1,2) |

18½

Summer industrial employment minimum of four weeks.

*Second Semester*

|                            |    |       |
|----------------------------|----|-------|
| Chem. 12, General          | 3½ | (3,2) |
| Drawing 14, Engineering    | 1½ | (0,4) |
| Eng. 16, Comp. & Am. Lit.  | 3  | (3,0) |
| Gov. 12, Am. Gov't.        | 2  | (2,0) |
| Math. 18, Gen. Sci. Math.  | 3  | (3,0) |
| M. E. 17 or 12 & 14, Shop  | 2  | (0,6) |
| M. S. 12, Military Science | 1  | (0,3) |
| W. D. 12, Gen. Textiles    | 1½ | (1,2) |

17½

## SOPHOMORE YEAR

|                               |    |       |
|-------------------------------|----|-------|
| Drawing 25, Mechanical        | ¾  | (0,2) |
| Eng. 21, Lit. & Adv. Comp.    | 2  | (2,0) |
| M. E. 23, Machine Shop        | 1  | (0,3) |
| Math. 25, Industrial Math.    | 3  | (3,0) |
| M. S. 21, Military Science    | 1  | (0,3) |
| Physics 11, General           | 3½ | (3,2) |
| W. D. 21, Elem. Design        | 2  | (2,0) |
| W. D. 23, Weaving             | ¾  | (0,2) |
| Y. M. 21, Pickers             | 2½ | (2,2) |
| *Y. M. 24, Mill Problems      | 2  | (2,0) |
| Drawing 26, Mechanical        | ¾  | (0,2) |
| Eng. 22, Lit. & Adv. Comp.    | 2  | (2,0) |
| M. S. 22, Military Science    | 1  | (0,3) |
| Physics 12, General           | 3½ | (3,2) |
| W. D. 22, Adv. Design         | 2  | (2,0) |
| W. D. 24, Weaving             | ¾  | (0,2) |
| W. D. 26, Mill Problems       | 2  | (2,0) |
| Y. M. 22, Cards & Draw F.     | 2½ | (2,2) |
| Voc. Ed. 23, Intro. to I. Ed. | 1  | (1,0) |
| Voc. Ed. 26, Observ. of       |    |       |
| Teaching                      | 1  | (0,2) |

18½

Summer industrial employment minimum of four weeks.

16¾

# JUNIOR YEAR

|                                            |                  |                                              |                  |
|--------------------------------------------|------------------|----------------------------------------------|------------------|
| Sociol. 31, Sociology -----2               | (2,0)            | Eng. 32, Business Law -----2                 | (2,0)            |
| M. S. 31, Military Science ---1            | (0,3)            | Voc. Ed. 32, Org. of Courses                 |                  |
| Voc. Ed. 39, Prin. of Sec. -----3          | (3,0)            | of Study -----3                              | (3,0)            |
| W. D. 31, Dobby Design ---2                | (2,0)            | M. E. 34, Mech. Engr. -----3                 | (3,0)            |
| W. D. 33, Fab. Analysis ---1               | (0,2)            | M. E. 34a, Mech. Engr. Lab. $\frac{2}{3}$    | (0,2)            |
| W. D. 35, Fancy Loom Fixing $\frac{2}{3}$  | (0,2)            | M. S. 32, Military Science --- $\frac{2}{3}$ | (0,2)            |
| Y. M. 31, Rov. Frames -----2 $\frac{2}{3}$ | (2,2)            | W. D. 34, Fab. Analysis ---1                 | (0,2)            |
| Y. M. 34, Spinning -----3                  | (2,3)            | W. D. 36, Fancy Loom Fixing $\frac{2}{3}$    | (0,2)            |
| Electives -----2                           |                  | *Y. M. 28, Cotton Grading --- $\frac{2}{3}$  | (0,2)            |
|                                            |                  | Y. M. 42, Combers -----1 $\frac{2}{3}$       | (1,2)            |
|                                            |                  | Electives -----4                             |                  |
|                                            | 17 $\frac{1}{3}$ |                                              | 17 $\frac{1}{3}$ |

# SENIOR YEAR

|                                                |       |                                              |                  |
|------------------------------------------------|-------|----------------------------------------------|------------------|
| E. E. 35, Elec. Mach. -----2 $\frac{2}{3}$     | (2,2) | M. S. 42, Military Science --- $\frac{2}{3}$ | (0,2)            |
| Econ. 23, Economics -----2                     | (2,0) | *Voc. Ed. 43, Prac. Teach. ---5              | (0,10)           |
| Eng. 31, Public Speaking ---2                  | (2,0) | Voc. Ed. 46, Tech. of Teach. ---3            | (3,0)            |
| M. S. 41, Military Science ---1                | (0,3) | W. D. 44, Warp Prep. -----2                  | (2,0)            |
| W. D. 43, Cost Finding ---3                    | (3,0) | W. D. 48, Knitting ----- $\frac{2}{3}$       | (0,2)            |
| Y. M. 43, Doubling & Draft. ---1 $\frac{2}{3}$ | (1,2) | Y. M. 44, Mill Econ. -----2                  | (2,0)            |
| Electives -----5 $\frac{2}{3}$                 |       | Electives -----3                             |                  |
|                                                | 18    |                                              | 16 $\frac{1}{3}$ |
| <b>Suggested Electives:</b>                    |       | <b>Suggested Electives:</b>                  |                  |
| Voc. Ed. 31.6, Ind. Arts. ---2 $\frac{2}{3}$   | (2,2) | Voc. Ed. 32.6, Ind. Arts. ---2 $\frac{2}{3}$ | (2,2)            |
| Voc. Ed. 61, Ind. Lab. -----2                  | (0,6) | Voc. Ed. 62, Ind. Lab. -----2                | (0,6)            |
|                                                |       | Econ. 24, Economics -----2                   | (2,0)            |

## DESCRIPTION OF COURSES\*

### AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

MR. AULL

MR. WILLIAMS

MR. MILLS

MR. FULMER

MR. FERRIER

AG. EC. 22—ELEMENTARY AGRICULTURAL ECONOMICS—Semester 1 or 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the student with the fundamental principles of Economics in their relation to Agriculture. *Principal Topics:* The students are made acquainted with the terms in general use in agricultural economics and their meaning; the factors of production, the systems of land tenure and the basic social and economic problems confronting agriculture.

MR. AULL AND STAFF

AG. EC. 32—FARM ORGANIZATION AND MANAGEMENT—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study the principles and problems involved in organizing and operating the successful farm business. *Principal Topics:* Farm organization and management; economic specialization in relation to agriculture; types of farming and the economic, physical and biological factors determining them; selection and combination of farm enterprises for highest profits; physical and financial organizations of farms, and farm operation in areas representative of the important types.

MR. FULMER

AG. EC. 33—STATISTICAL METHODS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* A course in the meaning and application of statistical methods which will train students to make ordinary statistical studies. *Principal Topics:* Sampling, tabular and graphic presentation, averages, ratios and coefficients, dispersion, the theory of probability and error, index numbers, trends, and correlation.

MR. WILLIAMS

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\*Below, and on the pages following, are given in alphabetical order the descriptions of courses, including the subject, catalog number, descriptive title, the purpose, and the principal topics of each course. In general, Freshman courses are numbered from 11 through 19; Sophomore, 20 through 29; Junior, 30 through 39; and Senior, 40 through 60.



AG. EC. 34—PUBLIC FINANCE—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22, 33.

*Purpose:* To familiarize the student with the problems of taxation and their economic and social implications with particular reference to agriculture. *Principal Topics:* The essentials of a just and equitable tax; a critical examination of some of the more common revenue-raising measures; budgets, and public expenditures, etc. The student will be given opportunity to study in detail the relative burden of state and local taxes upon different groups of individuals. (*Public Finance*—Lutz.)

MR. AULL

AG. EC. 36—COOPERATION IN AGRICULTURE—Semester 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the student with the techniques and ethics of the cooperative business method and its applications to producing, purchasing, marketing, and financing in agriculture.

MR. MILLS

AG. EC. 40—ECONOMIC GEOGRAPHY—Semester 2 (3 and 0) 3 cr.

*Purpose:* A course for those desiring to understand the relation between geography and economic conditions, including the laws of trade. *Principal Topics:* Industrial geography, which includes the geographic, geologic, and climatic laws governing the establishment of any form of industry, all agricultural products, fish, manufacturing, and mineral resources being considered in its terms; commercial geography, which is concerned with the laws of trade and the trade routes of the world; the general influence of geologic factors on international relationship and policy is stressed. (*Industrial and Commercial Geography*—Smith.)

MR. MILLS

AG. EC. 41—PRINCIPLES OF MARKETING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study problems encountered by farmers in marketing their products. Different channels of trade and types of marketing agencies are studied. *Principal Topics:* A course dealing with the principles of marketing, cooperative marketing, marketing programs, marketing services, marketing mechanism, market grades, and standardization;

storage, warehousing, transportation, future trading, inspection and grading of perishable and staple products. (*Marketing Principles*—Pyle.)

MR. AULL

AG. EC. 42—RURAL SOCIOLOGY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study human relations as modified by life in the country.

*Principal Topics:* The farm family; its food requirements; its housing, health; schooling; recreational opportunities, and the relation of the farm family to land, whether as owner or tenant.

MR. WILLIAMS

AG. EC. 43—FARM FINANCE AND ACCOUNTING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22, 32, and 33.

*Purpose:* (a) To analyze financial requirements of individual farmers and of farmers' marketing and purchasing organizations. (b) To understand the fundamental principles of accounting adapted to the farm business, and to make application of accounting data to farm management.

*Principal Topics:* Critical study of different types and forms of accounts; actual practice in record-keeping, beginning with simple operations such as the inventory, the cash book, and ledger; analysis of credit requirements of farmers; investor and depositors as sources of credit; a study of financial institutions serving agriculture, such as farm mortgage companies, federal and joint stock land banks, immediate credit banks, live-stock loan companies, national and state banks, and the federal reserve banks; principles upon which credit is extended; and the cost of credit.

MR. FERRIER

AG. EC. 44—LAND ECONOMICS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22, 32, and 33; Senior Standing.

*Purpose:* To study land as a resource, as a factor in production, and its relation to society. *Principal Topics:* A critical treatment of such subjects as land settlement and colonization, land booms and depressions, land valuation and assessment, land price movements and rents. Economic land holding and economic land utilization are studied from individual, state, and national viewpoints. Particular attention is given to state and

national land planning, rural zoning, and conservation. (*Land Economics*—Ely and Wehrwein.)

MR. AULL

AG. EC. 46—FARMERS' MOVEMENTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To give the student a view of the efforts of farmers to organize for the improvement of agriculture and other rural concerns. *Principal Topics:* Beginning with the first local agricultural society, the development of this movement is followed through the period of the Civil War. After 1865, the Grange, Farmers' Alliance, etc., are studied in their chronological order.

MR. MILLS

AG. EC. 51, 52—SEMINAR—Semesters 1 and 2 (1 and 0) 1 cr. each semester.

*Prerequisite:* Senior standing and major in Agricultural Economics.

*Purpose:* To acquaint the student with the relation of economics and sociology to specific problems. *Principal Topics:* Each student will select some problem for intensive study, and the various problems selected will be discussed in their relation to each other and to the current situation.

MR. AULL AND STAFF

### AGRICULTURAL ENGINEERING

MR. NUTT

MR. JONES

AG. ENGR. 22—FARM MACHINERY—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give theoretical and practical training in the operation of modern farm equipment. *Principal Topics:* Construction, operation, requirements and utilization of tillage, seeding, cultivating, harvesting and belt-operated farm machinery. (*Farm Machinery and Equipment*—Smith.)

MR. NUTT

MR. JONES

## AG. ENGR. 23—AGR. MECHANICS—Semester I (2 and 3) 3 cr.

*Purpose:* To give the theoretical and practical application of the mechanics pertaining to agriculture. *Principal Topics:* Soldering, cement work, rope work, belts, pulleys and laces, leather work, pipe fitting, painting, wood finishing, and glazing. (*Mechanical Training*—Boss, Dent, and White.)

MR. NUTT      MR. JONES

AG. ENGR. 35—MOTORS AND POWER MACHINERY—Semester I (2 and 3)  
3 cr.

*Purpose:* To give to the student theories of operation, construction, and utilization of internal combustion engines. *Principal Topics:* History of the internal combustion engine, nomenclature and definitions, principles of operation, power and its measurement, and gas engine troubles. (*Farm Gas Engines and Tractors*—Jones.)

MR. NUTT

AG. ENGR. 43—WATER SUPPLY AND SANITATION—Semester I (2 and 2)  
2 2/3 cr.

*Purpose:* To give the theoretical and practical applications of water supply and sanitation as it is applied in rural homes and communities. *Principal Topics:* Water systems, pumping machinery, plumbing fixtures, sewage disposal systems, water purification systems.

MR. JONES

## AG. ENGR. 45—FARM BUILDINGS—Semester I (1 and 3) 2 cr.

*Prerequisite:* Drawing 25 and 28.

*Purpose:* To assist students in the design and construction of farm buildings. *Principal Topics:* Properties of farm building materials, principles of concrete construction, essentials and design of typical structures, wood preservatives, specification, cost estimating, and farmstead sanitation. (*Farm Buildings*—Scoates.)

MR. NUTT



AG. ENGR. 46—ADVANCED FARM BUILDINGS—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* Ag. Engr. 45.

*Purpose:* A continuation of Agricultural Engineering 45. *Principal Topics:* A more detailed study of construction, design, and cost estimation of farm buildings. (*Farm Buildings*—Scoates.)

MR. NUTT

AG. ENGR. 47—SOIL CONSERVATION—Semester 1 (1 and 3) 2 cr.

*Purpose:* To provide a less technical course in terracing and drainage for students majoring in Agricultural Education and those majoring in any field of agriculture other than Agricultural Engineering. *Principal Topics:* Elementary surveying, prevention of soil erosion, with equal emphasis on terracing, design, and study of drainage systems. (*Soil Conservation*—Ayres.)

MR. NUTT

AG. ENGR. 48—ADVANCED FARM MACHINERY LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Agr. 22.

*Purpose:* To provide advanced practical training for students in the School of Agriculture whose major is Agricultural Engineering. *Principal Topics:* Testing and adjusting of tractors, seeding, cultivating, harvesting and belt-operated farm equipment.

MR. NUTT

AG. ENGR. 49—SURVEYAGE AND DRAINAGE—Semester 1 (2 and 3) 3 cr.

*Purpose:* To fulfill the need of instruction dealing with drainage, terracing, reclamation, and surveying problems pertaining to farms. *Principal Topics:* Elementary surveying, design and study of drainage systems, prevention of soil erosion, with special emphasis on terracing, land reclamation, and the use of explosives. (*Soil Conservation*—Ayres.)

MR. NUTT

AG. ENGR. 51 & 52—INTRODUCTION TO RESEARCH AND THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To teach the student how to attack and solve a research problem. *Principal Topics:* A suitable problem is assigned each student. The results of the study are presented in thesis form.

MR. NUTT

MR. JONES

## AGRONOMY

MR. COOPER

MR. COLLINGS

MR. PATRICK

MR. LIPSCOMB

AGR. 11—FIELD CROPS—*Semester 1* (3 and 0) 3 cr.

*Purpose:* To give the student a fundamental course in general field crops. *Principal Topics:* Origin, history, botanical characteristics, physiology, ecology, varieties, breeding, soil adaptation, fertilizer requirements of the most important crops of the United States and the cultural methods employed in their production. (*Production of Field Crops*—Huchinson and Wolfe.)

MR. COLLINGS

MR. LIPSCOMB

AGR. 20—SOILS—*Semester 2* (2 and 2) 2 2/3 cr.

*Purpose:* To give the student a fundamental course in soils. *Principal Topics:* Basic principles of soil physics, soil fertility, soil biology, and soil management. The study deals with the soil as a reservoir for water; a medium for root development, a source of nutrients, and a home of organisms. (*The Nature and Properties of Soils*—Lyon and Buckman.)

MR. COLLINGS

MR. LIPSCOMB

AGR. 30—FORAGE CROPS—*Semester 2* (3 and 0) 3 cr.

*Purpose:* To give the student a thorough knowledge of the botanical characteristics, cultural practices employed, and utilization of the leading forage plants of the United States. *Principal Topics:* The origin and adaptation of forage crops, methods of production; treatment of pastures, meadows, etc., and an intensive study of the leading forage plants with special emphasis given to those adapted to South Carolina conditions. (*Forage Plants and Their Culture*—Piper.)

MR. LIPSCOMB

AGR. 31—FERTILIZERS AND MANURES—*Semester 1* (2 and 0) 2 cr.

*Prerequisite:* Agr. 20.

*Purpose:* To give the student a thorough knowledge of the sources, characteristics, and uses of fertilizers and manures. *Principal Topics:*

Sources, mining and manufacturing, composition, physical characteristics, and use of fertilizers and manures. (*Commercial Fertilizers—Their Sources and Use*—Collings.)

MR. COLLINGS

AGR. 32—GENETICS—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To instruct students in the basic principles of genetics. *Principal Topics:* Heredity and variation, laws of heredity, application of genetic principles of plant and animal improvement. (*Principles of Genetics*—Sinnott and Dunn.)

MR. COOPER

MR. LIPSCOMB

AGR. 42—SOIL FERTILITY AND MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Agr. 20 and Agr. 31.

*Purpose:* A detailed study of soil composition and practices of soil management. *Principal Topics:* Composition of the soil, influence of crop rotations and fertilizers on soil productivity, influence of various methods of tillage on crop yields, and a general study of those factors essential for the practical utilization of South Carolina soils. (*Soil Management*—Bear.)

MR. COLLINGS

AGR. 43—FARM PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To familiarize the student with the practical problems confronted under various conditions that exist in different sections of South Carolina. *Principal Topics:* The problems to be taken from experiences of farmers, county agents, and specialists in adjusting farm practices to varying conditions of organization, soil types, and climate.

MR. PATRICK

AGR. 44—ADVANCED SOIL LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Agr. 20.

*Purpose:* To develop laboratory technique and to make students proficient in making physical and chemical determinations of soils. *Principal Topics:* Mechanical analysis, determinations of volume weight, soil

water, organic matter, nitrogen, phosphoric acid, and potash. (*Soil Characteristics*—Emerson.)

MR. COLLINGS

AGR. 45—CROP NUTRITION—Semester I (2 and 0) 2 cr.

*Prerequisite:* Agr. 11.

*Purpose:* To give the student a comprehensive knowledge of the geographical distribution, soil and fertilizer requirements of important farm crops. *Principal Topics:* Economic importance and climatic requirements of various crops; important soil factors influencing crop production, and the nutrient requirements of crops. (*The Small Grains*—Carlton; and *The Corn Crop*—Montgomery.)

MR. COOPER

AGR. 47—ADVANCED CROP LABORATORY—Semester I (0 and 2)  $2\frac{2}{3}$  cr.

*Purpose:* To give advanced students detailed information on important agronomic problems. *Principal Topics:* Experimental methods used in agronomy, morphological characters, classification, and yielding capacity of important varieties of various farm crops. (*Bulletins and Periodicals.*)

MR. COOPER

MR. LIPSCOMB

AGR. 49—PLANT BREEDING—Semester I (2 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Agr. 32.

*Purpose:* To present the application of the basic principles of genetics in the improvement of crop plants. *Principal Topics:* Biometrical methods, field plat technique, modes of reproduction of plants and methods of improving various crop plants. (*Breeding Crop Plants*—Hayes and Garber.)

MR. COOPER

MR. LIPSCOMB

AGR. 51—SEMINAR—Semester I (1 and 0) 1 cr.

*Purpose:* To consider agronomic topics of special interest in crop production. *Principal Topics:* Material occurring in current numbers of professional journals and bulletins.

MR. COOPER



## AGR. 52—SEMINAR—Semester 2 (1 and 0) 1 cr.

*Purpose:* To give the student the latest published and unpublished information concerning recent developments in the field of soil science. *Principal Topics:* Topics taken from latest published bulletins, reports, and professional magazines.

MR. COLLINGS

## AGR. 53—COTTON—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Agr. 11.

*Purpose:* To give the student a thorough knowledge of all phases of cotton production. *Principal Topics:* History, morphology, physiology, varieties, methods of cultivation, fertilization, insect and disease control, breeding, harvesting and grading of American Upland cotton. (*The Production of Cotton*—Collings.)

MR. COLLINGS

## AGR. 61, 62—INTRODUCTION TO RESEARCH AND THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To teach the student how to attack and solve a research problem. *Principal Topics:* A suitable problem is assigned each student. The results of the study are presented in thesis form.

AGRONOMY STAFF

## ANIMAL HUSBANDRY

MR. STARKEY

MR. RITCHIE

## A. H. 12—TYPES, BREEDS AND MARKET CLASSES OF LIVESTOCK—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the agricultural students a knowledge of the characteristics and uses of farm animals. *Principal Topics:* Types, breeds, and market classes of beef cattle, horses, mules, sheep, and swine. In laboratory, the judging of farm animals is given considerable emphasis. (*Types and Market Classes of Livestock*—Vaughan.)

MR. RITCHIE

A. H. 31—FEEDS AND FEEDING—Semester I (3 and 0) 3 cr.

*Prerequisite:* A. H. 12 and Chemistry 21.

*Purposes:* To give the student an understanding of the principles of feeding farm animals. *Principal Topics:* A study of nutrients, digestion, metabolism of feed stuffs, nutritive ratios, feeding standards, and the balancing of rations. (*Feeds and Feeding*—Henry and Morrison.)

MR. MORGAN

A. H. 33—JUDGING—Semester I (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* A. H. 12.

*Purpose:* To give advanced students an opportunity to become more proficient in judging livestock. *Principal Topics:* Judging cattle, horses, mules, sheep and swine. Classes of livestock are studied and placed, and reasons given for the placings.

MR. STARKEY

MR. RITCHIE

A. H. 34—PORK PRODUCTION—Semester 2 (2 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the students a thorough knowledge of the fundamentals of pork production. *Principal Topics:* Feeding and management of hogs at different weights and ages. Forage crops, protein supplements, preparation of feeds, methods of feeding, relative value of feeds, summer and winter management, buying, and selling. (*Pork Production*—Smith.)

MR. STARKEY

A. H. 35—FARM MEATS—Semester I (0 and 6) 2 cr.

*Prerequisite:* A. H. 12.

*Purpose:* The proper selection and killing of meat animals and the cutting and curing of farm meats. *Principal Topics:* Production, selection, slaughtering, cutting, curing, judging, and consumption of farm meats. (*Meat and Meat Products*—Tomhave.)

MR. RITCHIE

A. H. 37—HORSE AND MULE PRODUCTION—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To teach the fundamental principles involved in the feeding and management of horses and mules. *Principal Topics:* Rations for South Carolina work stock, buying and selling, care and management of horses and mules, horse breeding, mule production, breeds, and breed history of horses.

MR. RITCHIE

A. H. 40—ANIMAL BREEDING—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Dairy 32 or Agronomy 32.

*Purpose:* To give the student an understanding of the fundamental principles relative to the breeding and improvement of livestock. *Principal Topics:* Variation, heredity, selection, linebreeding, in-breeding, cross-breeding, breed analysis, and other correlated subjects. (*Breeding and Improvement of Farm Animals*—Rice.)

MR. STARKEY

A. H. 41—ADVANCED FEEDS AND FEEDING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the student a knowledge of the relative values of the different feeds used in livestock production, to study the nutrient requirements of the different classes of livestock, to become familiar with the digestible nutrients in our most common feeds, and to balance rations for all classes of livestock. (*Feeds and Feeding*—Henry and Morrison.)

MR. STARKEY

A. H. 42—SHEEP PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the students training relative to the feeding and management of sheep. *Principal Topics:* Feeding, breeding, management, judging, shearing, blocking, and sanitation. (*Productive Sheep Husbandry*—Coffey.)

MR. STARKEY

A. H. 43—BEEF PRODUCTION—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To familiarize the student with the principles of breeding, feeding, and management of beef cattle in the United States and foreign countries. *Principal Topics:* Early history of beef production, beef production in foreign countries, relation of beef production to general farming, most profitable feeds for beef production, methods of breeding to improve beef cattle, management of the purebred herd. (*Beef Production*—Snapp.)

MR. STARKEY

A. H. 52—SEMINAR—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To teach the student how to make use of the library and to keep informed concerning the latest findings of the experiment stations. *Principal Topics:* Timely topics are selected which have a bearing on the work which is being conducted at the various experiment stations. Each student summarizes the data on his particular problem and presents it to the group taking the course.

MR. STARKEY

## ARCHITECTURE

MR. LEE

MR. ANDERSON

MR. FITZPATRICK

MR. HODGE

ARCH. 11, 12—ELEMENTS OF ARCHITECTURE—Semester 1 (0 and 6) 2 cr. Semester 2 (0 and 4) 1 1/3 cr.

*Purpose:* To give the beginner in architecture a basic foundation for later work in design. This is a practical orientation course in the rudiments of architecture. *Principal Topics:* The orders of architecture, lettering, basic composition, rendering, doors, windows, pediments, arches, etc. (*Vignola, Pierre Esquie.*)

MR. FITZPATRICK

ARCH. 13, 14—FREEHAND DRAWING—Semesters 1 and 2 (0 and 4) 1 1/3 cr.

*Purpose:* To give the student a thorough working knowledge of the principles of both angular and parallel perspective—the perspective of



circles and shading. *Principal Topics:* Study of mass, form, proportion, and value with the mediums of pencil and charcoal. A sketching technique is stressed.

MR. HODGE

ARCH. 15—DESCRIPTIVE GEOMETRY—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.

*Purpose:* To develop the powers of visualization and imagination. *Principal Topics:* Points, lines, planes, intersections, and sections. Solutions on drafting board. (*Practical Descriptive Geometry*—D. A. Low.)

MR. FITZPATRICK

ARCH. 16—SHADES AND SHADOWS AND PERSPECTIVE—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Architecture 15.

*Purpose:* To create in the student's mind correct form and proportion by application of conventional shades, shadows, and principles of perspective. *Principal Topics:* Drafting board practice in casting of Shades and Shadows on architectural forms and principles of architectural perspective. (*Shades and Shadows for Architects*—Euck, Ronan and Oman.)

MR. FITZPATRICK

ARCH. 21—ARCHITECTURAL DESIGN—Semester 1 (0 and 14)  $4\frac{2}{3}$  cr.

*Prerequisite:* Arch 12, 14, 15, 16.

*Purpose:* To introduce the student by means of analytical problems to the basic principles of design inherent in the smaller elements of architecture. *Principal Topics:* Proportions; relative values of three dimensional mass; relation of lesser elements and decorative detail to the larger forms, in respect to mass and pattern; design of windows, doors, porticoes, arches; the Orders, together with analysis of detail of mouldings, carried out in rendered problems of from two to five weeks duration. Rendering: building out of masses, focus of attention.

MR. ANDERSON

ARCH. 22—ARCHITECTURAL DESIGN—Semester 2 (0 and 14)  $4\frac{2}{3}$  cr.

*Prerequisite:* Arch. 21.

*Purpose:* Continuation of Arch. 21, with a gradual working toward small problems in planning in preparation for Arch. 31. *Principal Topics:* Continuation of Arch. 21; planning as a problem in three dimensional space; elementary exercises in spatial requirements of windows, doors, stairs, roofs, bath rooms, closets, fireplaces, etc., carried out in rendered problems of from two to five weeks duration.

MR. ANDERSON

ARCH. 23, 24—ANTIQUE AND COLOR—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 14.

*Purpose:* To give a thorough drill in the drawing of simple casts of architectural fragments, parts of the figure, and still life groups. *Principal Topics:* Elements of decorative composition, still life groups in monochrome and color. Outdoor sketching—sketching in water-color, pastel, and charcoal.

MR. HODGE

ARCH. 23.5, 24.5—DECORATIVE DESIGN AND COLOR—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 14.

*Purpose:* To give the student majoring in Weaving and Designing the fundamentals of form, shade, and color underlying the design of decorative textiles. *Principal Topics:* Pencil sketching, charcoal drawing from models, casts and nature, adaptation of natural and conventional forms to decorative design as applied to textile fabrics, study of color in theory and practice, and water-color renderings.

MR. HODGE

ARCH. 25—HISTORY OF ARCHITECTURE—Semester 1 (4 and 0) 4 cr.

*Purpose:* To acquaint the student with the development of architecture, from prehistoric to mediaeval time, as a problem both of construction and aesthetics. *Principal Topics:* Influence of various geographic, geological, social, and psychological factors; structural problems and their solution, post and lintel, arch, vault, pendentive, dome; planning problems and their solution; temples, churches, public buildings; decorative problems and their solution, as revealed in the buildings of the Egyptian, Greek, Roman, Early Christian, Byzantine, and Romanesque periods.

MR. ANDERSON

ARCH. 25.5—ARCHITECTURE OF ANTIQUE AND EARLY CHRISTIAN CIVILIZATIONS—Semester 1 (2 and 0) 2 cr.

*Purpose:* An elective course to present, as cultural background, a brief, non-technical synopsis of architecture as it developed in the earlier civilizations of Western Europe. *Principal Topics:* While in general this course covers the material of Arch. 25, the lectures will be less concentrated and will be given from the lay rather than the architectural point of view. Emphasis will be placed not on specific buildings, but on types of buildings evolved by the different civilizations. Architecture in the Egyptian, Greek, Roman, and Early Christian civilizations.

MR. ANDERSON

ARCH. 26—HISTORY OF ARCHITECTURE—Semester 2 (4 and 0) 4 cr.

*Prerequisite:* Arch. 25.

*Purpose:* To acquaint the student with the development of architecture, from mediaeval to modern time, as a problem both of construction and aesthetics. *Principal Topics:* Influence of various geographic, geological, social, and psychological factors; the spread of the Romanesque system of building through Western Europe, and its crystallization in Gothic architecture; the revival of Classic form in Italy during the Renaissance; the spread of the Renaissance into France and England; nineteenth century eclecticism, and the beginnings of modern architecture.

MR. ANDERSON

ARCH. 26.5—ARCHITECTURE OF MEDIAEVAL AND RENAISSANCE CIVILIZATIONS—Semester 2 (2 and 0) 2 cr.

*Purpose:* An elective course to present, as cultural background, a brief, non-technical synopsis of architecture as it developed in the later civilizations of Western Europe. *Principal Topics:* Architecture of the mediaeval and renaissance civilizations of Italy, France and England. No prerequisite is required, but inasmuch as the forms of both mediaeval and renaissance architecture are either wholly or in part rooted in earlier developments, the first half-dozen lectures will be devoted to these before proceeding with the material of the course.

MR. ANDERSON

## ARCH. 28—SUMMER WORK—6 Weeks.

*Purpose:* To give the student an insight into the practical side of the profession, a better appreciation of the objectives in his college work and to enable him to secure better employment upon graduation. *Principal Topics:* Any duties connected with an architect's office or on construction work with a contractor, or making measured drawings of some building of good architectural character approved by the faculty of architecture. The student is expected to do this without remuneration if necessary.

ARCH. 31, 32—ARCHITECTURAL DESIGN—Semesters 1 and 2 (0 and 22) 7 1/3 cr.

*Prerequisite:* Arch. 22.

*Purpose:* To acquaint the student with problems involving planning, elevation, and mass composition in all styles of architecture. *Principal Topics:* The formal plan problem of public buildings; studies in entourage, elements of landscape architecture with relation to plan and elevation, interior architecture, indication, and presentation. The esquisse-esquisse.

MR. FITZPATRICK      MR. ANDERSON

ARCH. 31a—THEORY OF ARCHITECTURE—Semester 1—(Given jointly as part of Arch. 31.)

*Prerequisite:* Registration in Architecture 31.

*Purpose:* An open period where all topics relating to architecture are brought up for discussion. Seminar. *Principal Topics:* Formal discussion of the theory of design; axial relationships, mosaic, circulation, requirements of type buildings; informal discussion of new theories of design and style; competitions and exhibitions.

MR. FITZPATRICK

ARCH. 33, 34—CAST DRAWING—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 24.

*Purpose:* An advanced course in the representation of antique sculpture to show the elements of anatomy and its relation to form. *Principal Topics:* Drawing from casts with a choice of mediums such as charcoal, conte, pastel, etc.; outdoor sketching in pencil and water-color.

MR. HODGE



ARCH. 33.5—DECORATIVE DESIGN AND COMPOSITION—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Arch. 24.5.

*Purpose:* To give the student majoring in Weaving and Designing advanced training in the composition of textile patterns. *Principal Topics:* Composition of border patterns; geometric bases for all-over repeating designs; designing for damasks, brocades, tapestries, rugs, etc.

MR. HODGE

ARCH. 35, 36—BUILDING CONSTRUCTION—Semester 1 (3 and 0) 3 cr.  
Semester 2 (2 and 0) 2 cr.

*Purpose:* To give the student a knowledge of the materials used in the construction of a frame building, their qualities and uses. *Principal Topics:* Growth of wood, house framing, roofing, door and window details, flooring, plastering, interior and exterior finish, painting, chimney construction, hardware, estimating, specification writing, problems in calculation. (*Materials and Methods of Architectural Construction*—Gay and Parker.)

MR. LEE

ARCH. 37, 38—WORKING DRAWINGS—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Prerequisite:* Architecture 32.

*Purpose:* The student is required to make complete working drawings of a frame building just as the practicing architect does in his office. *Principal Topics:* Scale drawings of plan of each floor, foundation and roof; elevation of each side of building; large scale details of framing, doors, windows, trim, stairs, cornice, roof and chimney; calculations; tracing, blueprinting.

MR. LEE

ARCH. 39—HISTORIC ORNAMENT—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Arch. 22, 24, 26.

*Purpose:* To acquaint the student with the development, from pre-historic to modern time, of architectural ornament. *Principal Topics:* Carved and painted ornament; mosaic pavements; painted wall decoration;

stained glass, a decoration of vaults and ceilings; interior decoration; as developed in Egyptian, Greek, Roman, Mediaeval, and Renaissance architecture. After a brief analysis of each phase, the student is required to submit a small rendered plate of the particular ornament under consideration.

MR. ANDERSON

ARCH. 40, 49—LIFE DRAWING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Prerequisite:* Arch. 34.

*Purpose:* To acquaint the student with the proportion and anatomy of the nude and draped figure. Designed primarily for architectural students. *Principal Topics:* Quick sketches of the nude for action and movement. Longer studies of the nude and draped figure for tone values, composition, and light effects. Charcoal as a medium.

MR. HODGE

ARCH. 40.5—HISTORY OF PAINTING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Junior or Senior Standing.

*Purpose:* Stressing the appreciation of painting through the various national styles. *Principal Topics:* Pre-historic painting; Egyptian and Greek painting; the Renaissance in Italy, the Netherlands, and France; the German, Spanish, English, and American schools; the International style and abstract art; illustrated with slides and mounted reproductions. (*University Prints.*)

MR. FITZPATRICK

ARCH. 41, 42—ARCHITECTURAL DESIGN—Semester 1 (0 and 20) 6 2/3 cr. Semester 2 (0 and 21) 7 cr.

*Prerequisite:* Arch. 32.

*Purpose:* To present architectural problems of an advanced nature. *Principal Topics:* The complex plan, multi-storied elevation, elements of civic planning, advanced archaeology problems, the esquisse-esquisse, advanced landscape architecture.

MR. ANDERSON

ARCH. 41.5—ART APPRECIATION—Semester 1 (2 and 0) 2 cr.

(For students in Industrial Education—Elective).

*Purpose:* To cultivate in the student an artistic taste and to direct and instruct it by bringing him in contact with the best examples. *Principal Topics:* Periods and styles of architecture, painting, sculpture, furniture, ornament, decorative and interior composition, given by lectures and lantern slides.

STAFF

ARCH. 42.5—INDUSTRIAL DESIGN—Semester 2 (0 and 2) 2/3 cr.

(For students in Industrial Education).

*Prerequisite:* Drawing 12 and 14, Architecture 41.5.

*Purpose:* To give the students the fundamentals in design of simple pieces of furniture as worked out on the drafting table. *Principal Topics:* Working detail drawings of chairs, tables, metal work, etc.

MR. LEE

ARCH. 43, 44—BUILDING CONSTRUCTION—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Arch. 36.

*Purpose:* To give the student a working knowledge of the nature, quality, and uses of materials in a masonry building. *Principal Topics:* Foundations, mortars, details of masonry construction, steel, concrete, fireproof construction, estimates, specifications, superintendence, calculations.

MR. LEE

ARCH. 45, 46—STRUCTURAL DESIGN—Semester 1 (0 and 6) 2 cr. Semester 2 (0 and 8) 2 2/3 cr.

*Prerequisite:* Architecture 38.

*Purpose:* To train the student to make working drawings of a masonry building with specifications, including mechanical plant, as usually prepared in the practicing architect's office. *Principal Topics:* Scale drawings of all floor plans and elevations, cross sections; large scale details of all parts of the construction with necessary calculations; specifi-

cation writing, estimating; completed documents are to be in approved shape so that they may be submitted to a contractor for a bid.

MR. LEE

ARCH. 47—MECHANICAL PLANT—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Architecture 38.

*Purpose:* To familiarize the student with the design and requirements of heating, lighting and sanitary systems in a building. *Principal Topics:* Hot air, hot water, and steam systems of heating; ventilation, electric lighting, plumbing for supply and drainage. Layout of these systems is required on drawings made in Architecture 38 or 45.

MR. LEE

ARCH. 48—PROFESSIONAL PRACTICE—Semester 2 (1 and 0) 1 cr.

(For seniors in Architecture only).

*Purpose:* To familiarize the student with methods of practice of architecture and inculcate in him the high ethical ideals of the profession. *Principal Topics:* Office management and organization, laws, codes, contracts, ethics, competitions; documents of the American Institute of Architects are studied.

MR. LEE

ARCH. 51, 52—ADVANCED ARCHITECTURAL DESIGN—Semesters 1 and 2 (credits to be arranged with instructor).

*Prerequisite:* Arch. 42.

*Purpose:* A continuation of Arch. 42 with more advanced work, as an elective to advanced students having the prerequisite. *Principal Topics:* The student writes his own program of the project. Scheduled criticism periods and personal presentation to the architectural faculty for judgment at the end of each semester.

MR. FITZPATRICK



ARCH. 53—MODELING—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Arch. 12, 14, 15, 16.

*Purpose:* To give the student studies in three dimensional representation in a plastic medium. *Principal Topics:* Bas-relief plaques, the human figure in relief and in the round, decorative compositions in bas-relief and in the round, advanced anatomy of the human figure, and animal forms.

MR. HODGE

### BACTERIOLOGY

MR. AULL

BACT. 31—GENERAL BACTERIOLOGY—Semester 1 (2 and 4) 3 1/3 cr.

*Prerequisite:* Botany 13 and 14, Chemistry 11 and 12. (*Suggested:* Chemistry 21, or Chemistry 25 and 26.)

*Purpose:* To give the student a clear working knowledge of the fundamentals of bacteriology. *Principal Topics:* Morphology, classification, distribution, cultivation, observation, and physiology of microorganisms; effects of organisms on their environment; microorganisms and health. (*Bacteriology*—Tanner; *Laboratory Technique in Bacteriology*—Levine.)

MR. AULL

BACT. 40—DAIRY BACTERIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Bacteriology 31.

*Purpose:* To give the student a detailed knowledge of bacteriology in its relation to the dairy industry. *Principal Topics:* Bacterial counts on milk, milk fermentations, contamination of milk and cream, reducing the contamination of milk, growth of microorganisms in milk and cream, body cells in milk, spread of diseases through milk and its derivatives; preservation of milk and cream, milk enzymes, bacteriology of prepared milks, ice cream, butter cultures, fermented milks, butter, cheese, tests for the quality of milk and cream. (*Dairy Bacteriology*—Hammer; *Standard Methods of Milk Analysis and Mimeographed Notes*.)

MR. AULL

BACT. 42—SANITARY BACTERIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Chemistry 11 and 12.

*Suggested:* Botany 13 or 14 and Organic Chemistry.

*Purpose:* This course is designed primarily for Engineering students. After a consideration of the fundamentals of bacteriology, the course is designed to give a knowledge of the relation of bacteriology to water purification and sewage disposal. *Principal Topics:* Morphology, classification, physiology, and cultivation of microorganisms; the bacteria in natural waters, the location and protection of water supplies, water borne diseases, algae and their relation to water supplies, the Colon-Typhoid group of bacteria, the bacteriological examination of water and sewage, the purification of water, operation of control laboratories, bacteriological control of swimming pools, the bacteriology of sewage and sewage, the purification of water, operation of control laboratories, *Bacteriology*—Prescott & Winslow; *Water Purification Control*—Hopkins; *Lectures and Technical Papers*; *Standard Methods for the Examination of Water and Sewage of the A. P. H. A.* and *Mimeographed Notes.*)

MR. AULL

BACT. 44—SOIL MICROBIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Bacteriology 31.

*Purpose:* To give the student accurate knowledge of the importance of microorganisms in the maintenance of soil fertility. *Principal Topics:* The soil and the plant, the microbe and its activities, the soil population, the role of microbes in the decomposition of organic substances, transformation of nitrogen, transformation of mineral substances in soil by the action of microorganisms, interrelationships between higher plants and soil microorganisms, modification of the soil population, importance of microbes in soil fertility. (*Principles of Soil Microbiology*—Waksman.)

MR. AULL

## BOTANY

MR. ARMSTRONG

MR. ROSENKRANS

MR. RICE

MR. MACLACHLAN

BOT. 11—GENERAL BOTANY—Semester 1 (2 and 4) 3 1/3 cr.

*Purpose:* To give a general survey of the principles manifest in the life of plants. *Principal Topics:* The first part of the semester is devoted to a study of the form, structure, and physiology of the higher plants, followed by a study of algae, bacteria, fungi, liverworts, mosses,

and ferns, with the application of the biological laws. Descriptions, life histories and adaptation of the representative organisms are considered.

MR. ROSENKRANS

MR. RICE

MR. MACLACHLAN

BOT. 13—AGRICULTURAL BOTANY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the students knowledge of the different plant organs and their uses. *Principal Topics:* The structure and functions of the various parts of the higher seed plants and the broad principles of metabolism, growth, and reproduction are first taken up, followed by a study of the lower organisms.

MR. ROSENKRANS

MR. RICE

MR. MACLACHLAN

BOT. 14—AGRICULTURAL BOTANY—Semester 2 (2 and 4) 3 1/3 cr.

A continuation of course 13, dealing with the changes in form, structure, and methods of reproduction from the lower to the higher forms of plants. The latter part of the semester is devoted to practice work in plant identification. (*Field, Forest, and Garden Botany*—Gray.)

MR. ROSENKRANS

MR. RICE

MR. MACLACHLAN

BOT. 30—PLANT PHYSIOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Botany 11 or 13; one year of Chemistry, and one semester of Physics.

*Purpose:* To study all the relations and processes which have to do with the maintenance, growth, and reproduction of plants. *Principal Topics:* Absorption of matter and energy, water relations of the plant, utilization of reserve products and liberation of energy, growth, movement, and reproduction.

MR. ARMSTRONG

BOT. 41—FIELD CROP DISEASES—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14; suggested Botany 30.

*Purpose:* To give a knowledge of the common field crop diseases and methods for their control. *Principal Topics:* Historical background, fungicides, insects as disseminators of disease, types of organisms caus-

ing disease, symptoms, effect upon host plants, and control of the common field crop diseases.

MR. ARMSTRONG

BOT. 43—ORCHARD AND TRUCK CROP DISEASES—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14; suggested Botany 30.

*Purpose:* To study the diseases of fruits and vegetables, and methods for their control. *Principal Topics:* Historical background, fungicides, insects as disseminators of disease, symptoms, effect upon host plants, and control of diseases of fruits and vegetables. (*Manual of Vegetable Garden Diseases*—Chupp; *Manual of Fruit Diseases*—Hesler and Whetzel.)

MR. ARMSTRONG

BOT. 101—MORPHOLOGY OF THE FUNGI—Semester I (2 and 2) 2 2/3 cr.

(Hours to be arranged.)

*Prerequisite:* Botany 13 and 14.

A study of the morphology and taxonomy of the fungi with practice in pure culture isolation and growth of parasitic forms.

MR. ARMSTRONG

## CHEMISTRY

\*MR. BRACKETT

|                |               |             |
|----------------|---------------|-------------|
| MR. LIPPINCOTT | MR. MITCHELL  | MR. POLLARD |
| MR. HUNTER     | MR. CARODEMOS | MR. ZURBURG |
| MR. HODGES     | MR. GEE       | MR. HAWKINS |

CHEM. 11, 12—GENERAL CHEMISTRY—Semesters I and 2 (3 and 2) 3 2/3 cr.

*Purpose:* To give the student a general knowledge of the fundamentals of the science of chemistry, through lectures, lecture experiments,

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\*Deceased.



and laboratory exercises: *Principal Topics*: A consideration of the basic laws of chemistry and a study of the preparation and properties of the common substances. (*An Introduction to College Chemistry*—Briscoe; *Laboratory Manual, Exercises in General Chemistry*—Hunter.)

MR. HUNTER

MR. ZURBURG

CHEM. 13, 14—GENERAL CHEMISTRY—Semesters I and 2 (3 and 3)  
4 cr.

*Purpose*: This course is limited to students majoring in chemistry, textile chemistry, or chemical engineering. The subject matter is taken up in more detail than in Chemistry II and 12 and the additional hour of laboratory work enables the performance of more laboratory experiments. (*An Introduction to College Chemistry*—Briscoe; *Laboratory Manual, Exercises in General Chemistry*—Hunter.)

MR. HUNTER

MR. ZURBURG

CHEM. 21, 22—AGRICULTURAL CHEMISTRY—Semesters I and 2 (2 and 2) 2 2/3 cr.

*Prerequisite*: Chemistry II, 12.

*Purpose*: To acquaint the student with the tremendous role chemistry has played and is playing in the development of modern agriculture. *Principal Topics*: To familiarize the student with agricultural problems of chemical nature, such as those involved in soils, fertilizers, seeds, insecticides and fungicides, foods, and feeds. The laboratory work is designed to give the student adequate training in technique and methods so that he may fully appreciate the value of analytical data and be stimulated in further chemical work.

MR. CARODEMOS

CHEM. 23—QUALITATIVE ANALYSIS—Semester I (2 and 8) 4 2/3 cr.

*Prerequisite*: Chemistry II, 12.

*Purpose*: To emphasize the principles involved in chemical analysis, to broaden the student's knowledge of inorganic chemistry, to develop deductive reasoning power, and to give practice in manipulation. *Principal Topics*: Solutions and ionization; mass action and the law of chemical equilibrium; solubility product principle; hydrolysis, amphoterism, com-

plex ions; gaseous-liquid and liquid-liquid systems; reactions and equations. The laboratory work consists of analysis of unknown salt mixtures, industrial products, and alloys. (*Qualitative Analysis*—Engelder.)

MR. LIPPINCOTT

CHEM. 24—QUANTITATIVE ANALYSIS—Semester 2 (2 and 8) 4 2/3 cr.

*Prerequisite:* Chemistry II, 12.

*Purpose:* To give training for the more advanced work; the time is spent on simple quantitative analyses, both volumetric and gravimetric, which are typical of the subdivisions of the subject. *Principal Topics:* Volumetric analysis; gravimetric analysis; concentration of solutions, acidimetry and alkalimetry; oxidation and reduction, iodimetry; theory of electrolysis, assaying, stoichiometry. The laboratory work consists of the preparation of decinormal solutions; analysis of soda ash, sulphate, chloride, pyrolusite, iron ore, bleaching powder, silver coin, and limestone. (*Quantitative Analysis*—Engelder; *Laboratory Manual of Introductory Quantitative Analysis*—Nichols.)

MR. LIPPINCOTT

CHEM. 25—ORGANIC CHEMISTRY—Semester I (3 and 4) 4 1/3 cr.

*Prerequisite:* Chemistry II, 12.

*Purpose:* This is an extensive course in which the general principles of organic chemistry and the properties of important compounds receive thorough discussion. *Principal Topics:* Hydrocarbons of the methane, ethylene and acetylene series; saturated, unsaturated and polyhydroxy alcohols; monobasic and polybasic acids; ethers, anhydrides and esters; aldehydes and ketones; amines and amides; cyanogen and related compounds; halogen compounds; compounds containing two unlike substituents; carbohydrates; compounds containing phosphorous, arsenic, sulphur, and metals. (*Organic Chemistry*—Norris; *Laboratory Practices of Organic Chemistry*—G. Ross Robertson.)

MR. GEE

CHEM. 26—ORGANIC CHEMISTRY—Semester 2 (3 and 4) 4 1/3 cr.

*Prerequisite:* Chemistry 25.

*Purpose:* Same as Chemistry 25. *Principal Topics:* The identification of organic compounds and the determination of their structure; uric acid and related compounds; cyclic hydrocarbons; determination of the structure of aromatic compounds; nitro compounds and sulphonic acids; aromatic amines, nitro compounds and sulphonic acids; aromatic phenols, ethers, acids, aldehydes and ketones; aromatic compounds containing two unlike substituents. (*Organic Chemistry*—Norris; *Laboratory Practices of Organic Chemistry*—G. Ross Robertson.)

MR. GEE

CHEM. 27—ORGANIC CHEMISTRY—Semester 1 (3 and 4) 4 1/3 cr.

*Prerequisite:* Chemistry 11 and 12.

*Purpose:* To thoroughly prepare the student in general principles of organic chemistry pertaining to medicine and dentistry. *Principal Topics:* Paraffin and unsaturated hydrocarbons; alcohols; ethers; aldehydes and ketones; acids; grignard reagents; acyl halides; anhydrides of fatty acids; esters and amides; amines; cyanides and cyanates; sulphur compounds; complex and mixed aliphatic compounds; polyalcohols; dicarboxylic acids; hydroxyacids; unsaturated acids and ketonic acids; amino acids; proteins and related compounds; carbohydrates and alicyclic compounds. These topics are treated with special emphasis on the groups of substances which have particular value in medicine. (*Introduction to Organic Chemistry*—Williams; *Laboratory Practices of Organic Chemistry*—G. Ross Robertson.)

MR. GEE

CHEM. 28—ORGANIC CHEMISTRY—Semester 2 (3 and 4) 4 1/3 cr.

*Prerequisite:* Chemistry 25 or 27.

*Purpose:* To thoroughly prepare the student in general principles of organic chemistry pertaining to medicine and dentistry. *Principal Topics:* A complete survey of aromatic hydrocarbons with special attention to miscellaneous organic substances of biochemical interest. (*Introduction to Organic Chemistry*—Williams; *Laboratory Practices of Organic Chemistry*—G. Ross Robertson.)

MR. GEE

CHEM. 31, 32—PHYSICAL CHEMISTRY—Semesters 1 and 2 (3 and 4)  
4 1/3 cr.

*Prerequisite:* Chemistry 11, 12; Chemistry 22 or 24; *Suggested:* Organic Chemistry; Calculus.

*Purpose:* The systematic presentation of modern chemical theories of matter, solutions, and reactions. *Principal Topics:* Gases, liquids, and solids; atomic structure; thermochemistry, theory of solutions; chemical kinetics; equilibrium in homogeneous and heterogeneous systems; the Phase Rule; elementary electro-chemistry. Laboratory determinations of physico-chemical properties and laboratory studies of the topics listed. (*Outlines of Theoretical Chemistry*—Getman and Daniels. *Laboratory Manual, Exercises in Physical Chemistry*—Pollard.)

MR. POLLARD

CHEM. 31a, 32a—PHYSICAL CHEMISTRY—Semesters 1 and 2 (3 and 0)  
3 cr.

Same course as Chem. 31, 32 without laboratory work.

MR. POLLARD

CHEM. 33, 33a—QUANTITATIVE ANALYSIS—Semesters 1 and 2 (1 and 3)  
2 cr.

*Prerequisite:* Chemistry 24.

*Purpose:* To give further training and experience in quantitative chemical analysis through lectures and laboratory work. This course involves both gravimetric and volumetric analysis. *Principal Topics:* Complete analysis of clays, silicates, a partial analysis of coal, pig iron, and steel. Volumetric analysis includes the determination of arsenic, copper, and lead in insecticides. Quantitative analysis of alloys, including some quantitative electrometric separations. (*Quantitative Analysis*—Mahin.)

MR. MITCHELL

CHEM. 34—DAIRY CHEMISTRY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Chemistry 21, 22; *Suggested:* Chemistry 23, 24, 25.

*Purpose:* A study of Chemistry in its relation to the dairy industry. *Principal Topics:* Acquainting the student with the manipulation of apparatus found in the modern dairy laboratory; analyses of milk and dairy products; detection of adulterants, preservatives, colors, and causes of spoilage of dairy products. (References.)

MR. CARODEMOS



CHEM. 35, 36—THE CARBON COMPOUNDS—Semesters 1 and 2 (2 and 3)  
3 cr.

*Prerequisite:* Chemistry 26.

*Purpose:* To review and study more intensively representative classes of organic compounds, and to survey available methods for establishing the structure and configuration of organic molecules. In the laboratory the methods of organic synthesis and analysis are studied. (*Organic Chemistry*—Whitmore; *Practical Methods of Organic Chemistry*—Gattermann.)

MR. CARODEMOS

CHEM. 37, 38—GENERAL BIOCHEMISTRY—Semesters 1 and 2 (2 and 0)  
2 cr.

*Prerequisite:* Chemistry 23, 24, 25; *Suggested:* Chemistry 31.

*Purpose:* To give a comprehensive outlook and an acquaintance with the broader aspects of biochemistry. This course is of particular value to the pre-medical, pre-dental, and agricultural student. (*Introduction to Biochemistry*—Williams.)

MR. CARODEMOS

CHEM. 41, 42—INORGANIC CHEMISTRY—Semesters 1 and 2 (2 and 0)  
2 cr.

*Prerequisite:* Chemistry 11, 12; *Suggested:* Chemistry 31, 32.

*Purpose:* A comprehensive survey of the field of inorganic chemistry through lectures and lecture experiments. *Principal Topics:* Development of modern theories of valence and allied subjects and a detailed study of the elements and their compounds, based on the periodic system and including both well-known and rarer elements. (*Systematic Inorganic Chemistry*—Caven and Lander.)

MR. HUNTER

CHEM. 43, 44—COLLOID CHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 31, 32.

*Purpose:* The general theory of colloid chemistry and its applications. *Principal Topics:* Adsorption, contract catalysis, surface tension, preparation, and properties of colloidal solutions, gelatinous precipitates and jellies, emulsions, foams, fog, smoke. (*Colloid Chemistry*—Ware.)

MR. POLLARD

CHEM. 45—HISTORY OF CHEMISTRY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 25, 26.

*Principal Topics:* A study of the development of the science of chemistry from the earliest times to the present day. (*History of Chemistry*—Moore.)

MR. POLLARD

CHEM. 46—STOICHIOMETRY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 11, 12.

*Purpose:* To study various types of fundamental problems in chemistry through lectures and classroom work. *Principal Topics:* Balancing equations, principally oxidation and reduction reactions, gas law problems, atomic and molecular weights; factors; electrochemical problems; standard solutions; problems dealing with indirect analysis; calculations involving the elimination or introduction of a constituent; acidimetry and alkalinity; adjusting solutions to a desired normality and oxidation and reduction problems. (*Calculations of Quantitative Chemical Analysis*—Hamilton and Simpson.)

MR. MITCHELL

CHEM. 47—TECHNICAL ANALYSIS—Semester 1 (1 and 6) 3 cr.

*Prerequisite:* Chemistry 24 or 33.

*Purpose:* To study the chemical principles involved, and give training and experience in the analysis of a great many industrial products. Special attention is given to the standard, accurate methods. *Principal Topics:* Fertilizer analysis, organic and mineral analysis of feeding ma-

terials; complete water analysis, both mineral and sanitary; the analysis of sugar products, special attention being given to the use of the polariscope in this work. (Methods of the Association of Official Agricultural Chemists.)

MR. MITCHELL

CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

CHEM. 53, 54—INDUSTRIAL CHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Junior or Senior standing. *Suggested:* Chem. 31, 32.

*Purpose:* To study processes, operations, and reactions of chemical manufacture as related to such industries as paper, glass, fertilizer, sugar, leather, petroleum, etc. Visits are made to various plants and inspection reports made.

MR. ZURBURG

CHEM. 55, 56—ELEMENTARY CHEMICAL MICROSCOPY—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* Chemistry 23, 24, 25; Geology 33.

*Purpose:* To train the student in appreciating the value of the microscope in the industries. The microscope has come to be regarded as an indispensable adjunct in chemical-industrial operations in which economy of time, labor, and material is essential. *Principal Topics:* Theoretical consideration of the construction of optical instruments and their uses in chemical work. The laboratory work will include a study of the crystalline structure of common chemicals and their microscopic detection, determination of particle size and the solution of various practical industrial problems which can best be solved by the use of the microscope.

MR. HUNTER

MR. CARODEMOS

CHEM. 58—SENIOR PROBLEMS—Semester 2 (1 and 0) 1 cr.

*Prerequisite:* Senior standing in School of Chemistry

*Purpose:* The course in Senior Problems will be given somewhat in the manner of a seminar. *Principal Topics:* The staff of the School of Chemistry will meet each week with the seniors. Each senior will be given a certain definite problem to be worked out in connection with certain members of the staff, these problems to be reported on at the weekly meetings. Recent advances in chemistry and chemical literature will receive attention.

STAFF OF SCHOOL OF CHEMISTRY

### CIVIL ENGINEERING

MR. CLARKE

MR. GLENN

\*\*MR. QUATTLEBAUM

\*MR. STEVENSON

C. E. 21, 22—SURVEYING—Semester 1 (2 and 4) 3 1/3 cr. Semester 2 (3 and 2) 3 2/3 cr.

*Prerequisite:* Math 11, 12.

*Purpose:* To give the student considerable facility in the theory and use of modern surveying instruments and methods, in both field and office work. *Principal Topics:* Survey of tract, computation of area, and description by metes and bounds; differential and profile leveling and plotting; topographic surveying and mapping. (*Davis, Foote and Rayner.*)

MR. CLARKE

C. E. 23—SURVEYING—Semester 1 or 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* Math 11 and 12, Drawing 11 and 12.

*Purpose:* To give students not majoring in Civil Engineering practice in making preliminary surveys for, and computing cost of engineering projects. *Principal Topics:* The use of surveying instruments, maps, profiles, cross-sections, land measurement, earth work computations, and road location. (*Surveying—Bouchard.*)

MR. QUATTLEBAUM

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\*On Leave

\*\*In Place of Mr. Stevenson, on leave



C. E. 27, 28—MATERIALS AND METHODS OF CONSTRUCTION—Semesters 1 and 2 (2 and 0) 2 cr.

*Purpose:* To familiarize the student with the common materials and technical terms used in construction, and the ways in which the materials are used. *Principal Topics:* Foundations on soft soils; concrete, brick, and stone masonry; wood, steel, and reinforced concrete construction; floor and roof coverings; plastering and painting; and methods of cost-keeping. (*Building Construction*—Huntington.)

MR. CLARKE

C. E. 30—SUMMER SURVEYING CAMP

Between the Sophomore and Junior years, two weeks in June, at *Camp Clarke*, near Steedman, S. C. 3 credits.

*Prerequisite:* C. E. 21, 22.

*Purpose:* To give civil engineering students experience not only in camp organization and sanitation, but also in meeting field problems which arise in a rough country, several miles away from headquarters. *Principal Topics:* Reconnaissance, preliminary survey, and final location survey for a road between two selected termini, including plotting of map and profile. (See also C. E. 36.)

MR. CLARKE

C. E. 31—MECHANICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22. Physics 24, 26, or Arch. 12.

*Purpose:* To enable the student to combine his knowledge of mathematics and physics for computing and analyzing balanced forces acting on a point, a member, or a structure. The graphical method of solving problems in statics is also studied. *Principal Topics:* Components, resultants, reactions, moments of forces, center of gravity, moment of inertia. (*Applied Mechanics*—Poorman.)

MR. QUATTLEBAUM

C. E. 32—STRENGTH OF MATERIALS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* C. E. 31.

*Purpose:* To study the strength of brick, stone, concrete, wood, and steel under the action of tensile, compressive, flexural, and shearing

stresses. The elastic theory is used throughout the course. *Principal Topics:* Compression, tension, shear, modulus of elasticity, riveted joints, beams columns, struts, slab. (*Strength of Materials*—Boyd.)

MR. QUATTLEBAUM

C. E. 34—GRAPHIC STATICS—Semester 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* C. E. 31.

*Purpose:* A study is made in this course of the most useful application of graphical analysis to stresses in structures. Stresses due to wind and dead weight on roof trusses are analyzed. The design for one roof truss is worked out in detail. *Principal Topics:* Types of roof trusses, wind loads, dead loads, Maxwell diagrams, string polygons, built up members, column formula. (*Graphic Statics*—Fairman and Cutshall.)

MR. QUATTLEBAUM

C. E. 35—ROUTE SURVEYING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* C. E. 21, 22, 30.

*Purpose:* To familiarize the student with the special problems which arise in a survey for railroads, highways, canals, sewers, pipe lines, and transmission lines. *Principal Topics:* Theory of simple, compound, and reversed curves; transition spiral; railroad turnouts, computations of earthwork. (*Route Surveying*—Pickels and Wiley.)

MR. CLARKE

C. E. 36—ROADS AND PAVEMENTS—Semester 2 (3 and 3) 4 cr.

*Prerequisite:* C. E. 21, 22, 30.

*Purpose:* A study of the design, location, and construction of roads and pavements. *Principal Topics:* Economics of highway construction, location and design. Study of factors relating to highway construction, methods, and materials.

The design period is devoted to the preparation of detailed plans for a highway, using the notes taken in C. E. 30 at the Sophomore Summer Camp. (*Highway Design and Construction*—Bruce.)

MR. GLENN

C. E. 37, 38—STRUCTURAL PROBLEMS—Semester 1 (0 and 4) 1 1/3 cr.  
Semester 2 (0 and 6) 2 cr.

*Prerequisite:* Math 21, 22; Physics 24, 26; Drawing 25, 28.

*Purpose:* To study the elementary principles of design of culverts, piers, abutments, retaining walls, cranes, trusses, and plate girders. Approximately the first half of the first semester is spent in computing quantities and costs of simple structures. *Principal Topics:* Quantity of concrete in a beam bridge with its abutments; storage capacity of bins; materials for a mile of road; timber dam, forces acting on a retaining wall, stresses in bridge trusses, design of connections in a truss, design of a plate girder; cranes for handling ores. (*AISC Handbook of Steel Construction*, and *Structural Problems*—Young.)

MR. QUATTLEBAUM

C. E. 41—STRUCTURAL DESIGN—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Drawing 25, 28; C. E. 31, 34; C. E. 32 or M. E. 51; C. E. 37; C. E. 38.

*Purpose:* Fundamentals of structural steel design. *Principal Topics:* The complete detailed design of a steel highway bridge along with the economics of design. (*Stresses in Simple Structures*—Urquhart and O'Rourke. *Design of Steel Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 42—BRIDGE DESIGN—Semester 2 (2 and 6) 4 cr.

*Prerequisite:* C. E. 31, 34, 32, or M. E. 51, 37, 38, 41, 45.

*Purpose:* A study of the design and construction of reinforced concrete structures. *Principal Topics:* Economics and design of reinforced concrete buildings, bridges, piers, abutments, and retaining walls. (*Highway Bridges*—Kirkham; *Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 43, 44—ROAD MATERIAL TESTING LABORATORY—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* C. E. 32 and 36.

*Purpose:* Actual analysis and physical tests on construction materials. *Principal Topics:* Physical analysis and study of construction

materials, Portland cement, sand, concrete, etc. Special reference to Highway Materials both bituminous and non-bituminous. (*Highway Materials*—Bauer.)

MR. GLENN

C. E. 45—REINFORCED CONCRETE DESIGN—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* C. E. 31, 34, 32, or M. E. 51.

*Purpose:* A study of theory and practice of reinforced concrete design. *Principal Topics:* Elements of Designs of Reinforced Concrete, beams, slabs, columns, footings, etc. (*Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 46—MUNICIPAL AND SANITARY ENGINEERING—Semester 2 (5 and 6) 5 cr.

*Prerequisite:* C. E. 49.

*Purpose:* To familiarize the student with the procedure necessary to supply an adequate amount of potable water for public or private purposes, and the design and construction of sewerage systems and sewage treatment plants. *Principal Topics:* Quantity of water necessary, sources of supply, methods of utilizing source of supply; analysis, treatment of unpotable water; impounding reservoirs, pipe lines, methods of distribution, fire protection; amount of sewage, separate or combined sewerage systems, specific hydraulic problems arising in sewer design, manholes, and other appurtenances; maintenance of sewers, disposal of sewage by dilution, and methods of treatment by sedimentation, septic tanks, Imhoff tanks, contact beds, trickling filters, intermittent sand filters, activated sludge, principles of irrigation by sewage. (*Water Supply Engineering*—Waterman; *Sewerage and Sewage Treatment*—Babbitt.)

MR. CLARKE

C. E. 47—REINFORCED CONCRETE DESIGN—Semester 1 (2 and 6) 2 cr.

*Prerequisite:* C. E. 31, 32, 34, or M. E. 51.

*Purpose:* To give students not majoring in Civil Engineering a working knowledge of the theory of reinforced concrete design. *Princi-*



*pal Topics:* Design of reinforced concrete slabs, beams, girders, columns, and foundations. (*Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 48—CITY PLANNING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Registration in Civil Engineering in either the Senior or Junior year. *Elective Course:* Offered only if the registration justifies.

*Purpose:* To acquaint the student with the special problems confronting a city engineer or city manager not specifically of an engineering nature, but for the solution of which the public looks to the city officials. *Principal Topics:* Origin, growth, and development of cities; streets and street systems; traffic control; railway and water traffic problems; airports; parks and playgrounds; zoning; legal problems involved. (*Principles of City Planning*—Lohmann.)

MR. CLARKE

C. E. 49—HYDRAULICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math 21, 22; Phys. 23, 24, 25, 26.

*Purpose:* To acquaint the student with the behavior of water at rest or in motion. *Principal Topics:* Pressures exerted by water at rest; methods of measuring pressure; principles of water in motion; Bernoulli's theorem; measurement of water by orifices, weirs, nozzles, and Venturi meters; flow of water through short and long pipes; flow of water in open channels. (*Hydraulics*—Daugherty.)

MR. CLARKE

C. E. 50—THESIS—Semester 1 or 2. 1 or 2 credits. (3 credits for exceptional work.)

Civil Engineering students of exceptional ability, with the permission of the Head of the Civil Engineering department may choose as an elective, the preparation and submission of a thesis covering some phase of Civil Engineering. This thesis may be either an independent experimental investigation entered into with the hope of discovery of new engineering knowledge, or the independent prosecution of some already somewhat stabilized problem in engineering design. Those students who desire

to submit a thesis, as a part of their free electives, must present to the Head of the Civil Engineering Department not less than one month prior to the opening of the semester during which the thesis work is intended to be done, a complete outline of the work contemplated in the proposed thesis and the projected method of procedure. (Amount of credit given depends upon the nature of the subject, the amount of time devoted to it, and the quality of the work.)

MR. CLARKE

### DAIRY

MR. LAMASTER

MR. GOODALE

DAIRY 21—INTRODUCTORY DAIRYING—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give a practical working knowledge of dairy husbandry and dairy products. *Principal Topics:* History of dairying, dairy breeds, feeds and feeding, judging dairy animals, dairy farm buildings, quality milk production, testing milk and some of its products, the manufacture of milk products, and the food value of milk and milk products. (*Principles of Dairying*—Henry F. Judkins—Richard W. Smith, Jr., Second Edition.)

MR. GOODALE

DAIRY 31—DAIRY CATTLE JUDGING—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give an understanding of dairy form, breed type, and relations between form and function in dairy cattle. *Principal Topics:* Study of score cards, show yard requirements and classifications; fitting cattle for show and sale; values as influenced by form; buying dairy cattle; practice in judging Jersey, Guernsey and Holstein cattle of all ages.

MR. LAMASTER

DAIRY 32—GENETICS—Semester 2 (2 and 2) 2 2/3 cr.

Suggested antecedent course: Ag. Ec. 33.

*Purpose:* To give the student an understanding of the principles of heredity and variation with special reference to their application to the animal kingdom. *Principal Topics:* Mendel's law, physical basis of in-

heritance, chromosome theory, linkage, expression and interaction of factors, origin of hereditary differences, inheritance of quantitative characters, biometric methods. (*Principles of Genetics*—Sinnott and Dunn—Second Edition.)

MR. LAMASTER

DAIRY 34—PLANT ORGANIZATION AND MANAGEMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give a comprehensive understanding of the business of operating dairy plants with special emphasis on organization and practical management problems. *Principal Topics:* Survey before organization, form of organization, creamery construction, sewage disposal, refrigeration, labor, purchasing raw materials, equipment and supplies, power, water, rent, depreciation, interest, insurance, overrun, mechanical losses, manufacturing unit costs, marketing records, salesmanship, advertising, business correspondence, credits and collections, creamery bookkeeping, drawing creamery plans, and mathematical problems for the dairy plant operator. (*Management of Dairy Plants*—Mortensen.)

MR. GOODALE

DAIRY 35—DAIRY CATTLE FEEDING AND MANAGEMENT—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the fundamental principles in the care, feeding, and management of dairy cattle of all ages. *Principal Topics:* General considerations in selecting a breed, selecting the individual cow, calf raising, growth and development, raising dairy heifers, care and management of the milking herd, milking factors, feeding for milk production, stables for cows, dairy barn equipment, handling manure. (*Dairy Cattle and Milk Production*—Eckles.)

MR. LAMASTER

DAIRY 41—DAIRY MANUFACTURES (Butter and Market Milk)—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Dairy 21 and Chem. 38.

*Purpose:* To give a thorough knowledge of the manufacture of creamery butter, and the processing of market milk and special milks.

*Principal Topics:* Development of buttermaking, plant equipment, factory sanitation, processing market milk, testing milk and milk products, buying milk and cream, receiving and grading milk and cream, neutralization, pasteurization, removing flavors and odors, ripening, starters and starter making, cultured milks, churning cream and all subsequent processes until butter is ready for market, composition control, by-products, butter scoring, and butter storage. (*The Butter Industry*—Second Edition, 1927—Hunziker.)

MR. GOODALE

DAIRY 42—DAIRY MANUFACTURES (Ice Cream and Cheese)—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Dairy 21 and Chem. 38.

*Purpose:* A thorough study of ice cream making and the manufacture of soft cheese. *Principal Topics:* Development of ice cream industry; classification and specialties; colors and flavors; fruits in ice cream and ices; ingredients, calculation, and processing of the mix, and all subsequent steps in manufacturing and storing until ice cream is ready for consumer; composition control, analyzing products used; defects in ice cream; merchandising, processing, and marketing soft cheese. (*Ice Cream Making*—Sommer, second edition.)

MR. GOODALE

DAIRY 43—DAIRY CATTLE BREEDING—Semester 1 (1 and 2) 1 2/3 cr.

*Prerequisite:* Dairy 32, Genetics.

*Purpose:* To give the student an understanding of the methods used in developing and improving the breeds of dairy cattle. *Principal Topics:* Breed history, pedigrees, advanced register, methods of indexing proved sires, statistical study of the relations of environment to production.

MR. LAMASTER

DAIRY 48—THE NUTRITION OF DAIRY CATTLE—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Dairy 35.

*Purpose:* To give the student an understanding of the methods by which the animal body converts vegetable products into animal products. *Principal Topics:* Composition of animals and feeding stuffs, digestion



and resorption, circulation, respiration, and excretion, metabolism, balance of nutrition, requirements for maintenance, growth, reproduction, and milk production, function of minerals and vitamins.

MR. LAMASTER

DAIRY 51—SEMINAR—Semester 1 (1 and 0) 1 cr.

DAIRY 52—SEMINAR—Semester 2 (1 and 0) 1 cr.

*Prerequisite:* Dairy 21 and Dairy 35.

*Purpose:* To study special research problems in production and manufactures and to report the exposition of the results by theses. *Principal Topics:* Special selected individual topics not fully covered in course work, with emphasis placed on latest research.

MR. LAMASTER

MR. GOODALE

## DRAWING

MR. KLUGH

MR. HARRIS

MR. HODGE

MR. BRANCH

MR. SHIGLEY

DRAWING 11—FREEHAND DRAWING—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give the student a training in seeing and representing proportion and detail. *Principal Topics:* Proportion, detail, perspective.

MR. HODGE

MR. KLUGH

DRAWING 12—MECHANICAL DRAWING—Semester 2 (0 and 2) 2/3 cr.

*Purpose:* To train the student in the fundamentals of mechanical drawing to the point that he will be able to read drawings and make drawings of simple subjects. *Principal Topics:* Orthographic projection, dimensioning, blue printing. (Text to be announced.)

MR. HODGE

DRAWING 13—ENGINEERING DRAWING—Semester 1 (0 and 4) 1 1/3 cr.

*Purpose:* To give the student a thorough grounding in the fundamental principles of Engineering Drawing. *Principal Topics:* Lettering,

orthographic projection, threads, sectioning, tracing. (*Engineering Drawing—French.*)

MR. HARRIS

MR. SHIGLEY

MR. BRANCH

DRAWING 14—ENGINEERING DRAWING—Semester 2 (0 and 4) 1 1/3 cr.

*Prerequisite:* Drawing 13.

*Purpose:* To continue Drawing 13, bringing in refinements and details that time did not permit in the fundamental course. About one-half of this course will be freehand sketching. (*Engineering Drawing—French.*)

MR. HARRIS

MR. SHIGLEY

MR. BRANCH

DRAWING 25—MECHANICAL DRAWING—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Drawing 14.

*Purpose:* To ground the student in those fundamentals and essentials of the language of the engineer. *Principal Topics:* A continuation of the work given in Drawing 14; the descriptive geometry applications to graded problems, reading drawings, and layout work. (*Notes and Engineering Drawing—French.*)

MR. KLUGH

DRAWING 26—ELEMENTARY DESIGN AND KINEMATICS—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Drawing 25.

*Purpose:* To train the student to apply problems in drafting room solution. *Principal Topics:* Elementary principles in Machine Design, carefully studied and worked and in class problems, theory and practice involving problems in Kinematics and applications to some principles in machine design. (*Engineering Kinematics—Smith*)

MR. KLUGH

DRAWING 28—STRUCTURAL DRAWING—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Drawing 25.

*Purpose:* To acquaint the student with those needful helps in taking up major design problems in the structural field. *Principal Topics:* Ele-

mentary structural principles; study of symbols, proportions, and minor design; reading of structural drawings, study of methods in drafting, tracing, and blue printing. (*Engineering Drawing*—French.)

MR. KLUGH

DRAWING 31—MACHINE DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26.

*Purpose:* To teach the student the aid of layouts in the solution of many of his problems. *Principal Topics:* The course is a continuation of Drawing 26, giving a more extended course in the theory and application of design problems; calculations required and specifications stressed. (*Notes and Engineering Kinematics*—Smith.)

MR. KLUGH

DRAWING 32—MACHINE DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Drawing 31.

*Purpose:* To give the proper background to the student before he takes up the design problems in his major subject. *Principal Topics:* Simple problems in design, stressing the theory of design and application to specific problems. Calculations required, discussions encouraged concerning involved problems, theory stressed above other things, for the purpose of understanding some principles needed in the design of machines. (*Machine Design*—Bradford and Eaton.)

MR. KLUGH

### ECONOMICS

MR. WARD

MR. GATES

ECON. 23, 24—PRINCIPLES OF ECONOMICS—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Sophomore standing.

*Purpose:* To teach fundamental principles and lay the foundations for more detailed study of special problems. *Principal Topics:* Theory of value; specialization and exchange; land, labor, and capital as productive forces; rent, wages, interest, and profits as distributive shares of the

national income; money and banking; risk-taking; business cycles, and foreign trade.

MR. WARD

MR. GATES

ECON. 31—CONTEMPORARY ECONOMIC PROBLEMS—Semester 1 or 2 (3 and 0) 3 cr.

*Prerequisite:* Econ. 21 or 23 and 24.

*Purpose:* To present a critical analysis of the attacks on the structure and workings of the present economic system and of the leading proposals for the economic reorganization of society. *Principal Topics:* The integration of industry; industrial conflict; labor problems, the price system and its control; social insurance; government ownership and regulation; comprehensive programs of economic policy such as liberalism, socialism, and economic planning. (*Contemporary Economic Problems*—Taylor.)

MR. WARD

ECON. 32.—MONEY AND BANKING—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Econ. 21 or 23 and 24.

*Purpose:* To survey the field of monetary standards and banking systems, together with a comprehensive study of the principles of money and banking. *Principal Topics:* The origin, nature, and functions of money; monetary standards, monetary history of the United States; money and prices; commercial banking and its development in the United States; foreign exchange; the Federal Reserve System, and the problem of price stabilization. (*Textbook to be selected.*)

MR. WARD

ECON. 44—INTRODUCTION TO BUSINESS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Economics 21 or 23 and 24, and permission of the instructor.

*Purpose:* To provide an elementary approach, by the case method, to the study of business. *Principal Topics:* Types of business enterprises, organization of ownership, financing and promotion, business finance, production control, wages and labor organization, distribution, prices, sales, advertising. (*An Introduction to Business*—Gilbert and Gragg.)

MR. GATES



## ELECTRICAL ENGINEERING

MR. RHODES

MR. TINGLEY

MR. CREDLE

MR. SLONE

E. E. 22—ELECTRIC CIRCUITS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Concurrent with Phys. 22 and Math. 22.

An introductory course for sophomore electrical engineers dealing with basic ideas and the fundamental laws of electric and electromagnetic circuits.

MR. RHODES

E. E. 31—DIRECT-CURRENT MACHINERY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Phys. 21, 22; Math. 21, 22; E. E. 22.

The theory, construction, and operating characteristics of direct-current generators and motors; control equipment; transmission and distribution; and industrial applications. This course also includes continuation work on basic principles begun in E. E. 22.

MR. RHODES

E. E. 31a—ELECTRICAL MEASUREMENTS—Semester 1 (0 and 4) 1 1/3 cr.

*Prerequisite:* Must parallel or follow E. E. 31.

A laboratory study of the principles of direct-current, magnetic, and electrostatic circuits and the instruments used in their measurement. Emphasis is placed on proper choice of equipment, correct laboratory procedure and accurate presentation of results.

MR. CREDLE

E. E. 32—ALTERNATING-CURRENT CIRCUITS—Semester 2 (5 and 0) 5 cr.

*Prerequisite:* E. E. 31.

Alternating currents, reactions in alternating-current circuits, theory, calculation and measurement of single-phase and polyphase circuits.

MR. TINGLEY

E. E. 32a—ELECTRICAL LABORATORY—Semester 2 (0 and 4) 1 1/3 cr.

*Prerequisite:* E. E. 31. Must parallel or follow E. E. 32.

Part I. Tests of direct-current generators, motors and auxiliaries.

Part II. Experiments in single-phase and polyphase alternating-current circuits.

MR. CREDLE

E. E. 33—DIRECT-CURRENT MACHINERY—Semester 1 (4 and 0) 4 cr.

*Prerequisite:* Phys. 21, 22; Math. 21, 22.

The laws of the electric and magnetic circuits; the theory and operating characteristics of direct-current generators and motors; efficiency of direct-current machinery; direct-current distribution.

E. E. 33a—ELECTRICAL MEASUREMENTS—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 33.

A course embracing essentially the same experiments as those given in E. E. 31a.

MR. SLONE

E. E. 34—ALTERNATING-CURRENT CIRCUITS—Semester 2 (4 and 0) 4 cr.

*Prerequisite:* E. E. 33.

Single-phase and polyphase circuits; alternating-current instruments; theory of alternating-current transformers.

E. E. 34a—ELECTRICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 34.

A course embracing essentially the same experiments as those of E. E. 32a.

MR. SLONE

E. E. 35—ELECTRICAL MACHINERY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Phys. 11, 12 or Phys. 21, 22.

An elementary course in direct-current and alternating-current machinery. Intended primarily to acquaint the student with the adaptability of electric motors for specific applications.

MR. SLONE

E. E. 36—ELECTRICAL MACHINERY—Semester 2 (3 and 2) 3 2/3 cr.

*Prerequisite:* Phys. 21, 22.

An elementary course in direct-current and alternating-current machinery with special emphasis on operating characteristics and adaptability of specific types for certain duties.

MR. SLONE

E. E. 38—VOCATIONAL ELECTRICITY—Semester 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* E. E. 35.

Planned for teachers in high schools. It embraces (1) the application of elementary principles of electricity and magnetism to experiments and projects of special interest and value to high school students (2) the principles of organization of such work by the instructor.

MR. CREDLE

E. E. 41—ALTERNATING-CURRENT MACHINERY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* E. E. 31, 32.

Theory, design, and operating characteristics of transformers, synchronous motors, polyphase induction motors, and alternating-current machinery auxiliaries.

MR. RHODES

E. E. 41a—ELECTRICAL LABORATORY—Semester 1 (1 and 3) 2 cr.

*Prerequisite:* Must parallel or follow E. E. 41.

Part I: A complete experimental analysis of losses and operating characteristics of direct-current machines (continuation of E. E. 32a).

Part II. An experimental analysis of the operating characteristics of (1) synchronous generator including phase connections, voltage regulation, efficiency and parallel operation (2) induction regulators and constant-current transformers.

MR. TINGLEY

E. E. 42—ALTERNATING-CURRENT MACHINERY—Semester 2 (3 and 0)  
3 cr.

*Prerequisite:* E. E. 41.

Part I. A continuation of E. E. 41 embracing single-phase motors, synchronous converters, mercury arc rectifiers, and alternating-current machinery controls.

Part II. Special problems, such as harmonies in generators and transformers, short circuits, machine and system stability.

MR. RHODES

E. E. 42a—ELECTRICAL LABORATORY—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* E. E. 41, 41a.

Continuation of E. E. 41a including a comprehensive study of single-phase transformers, operating characteristics of polyphase induction motors, synchronous motors, synchronous converters, single-phase motors, and automatic magnetic and electronic control equipment.

MR. TINGLEY

E. E. 43—ALTERNATING-CURRENT MACHINERY—Semester 1 (3 and 0)  
3 cr.

*Prerequisite:* E. E. 34.

The theory and characteristics of synchronous generators and motors, polyphase induction motors, single-phase motors, synchronous converters, rectifiers, and auxiliaries.

MR. TINGLEY



E. E. 43a—ELECTRICAL LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 43.

A course paralleling E. E. 43 for the experimental determination of the characteristics of principal types of alternating-current transformers, generators, motors, converters, and controls.

MR. CREDLE

E. E. 44—ELECTRIC POWER TRANSMISSION—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* E. E. 41.

Electrical, mechanical, and economic principles of the transmission of electrical energy for power purposes. Includes comprehensive study of electrostatics and electromagnetics with particular reference to power transmission; line calculation; system regulation; and protection.

MR. TINGLEY

E. E. 45—ELECTRICAL DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* E. E. 31.

The application of the fundamental principles of electric and magnetic circuits through a complete design of a generator or motor.

MR. RHODES

E. E. 46—ELECTRICAL DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* E. E. 41.

Problems in transformer and induction motor design and in transmission system regulation.

MR. RHODES

E. E. 47—ELECTRONICS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* E. E. 32 or E. E. 34.

The properties of electron tubes with particular reference to their uses in industry and in communication. Characteristics of high vacuum and gas filled diodes, high vacuum triodes and thyatron are the principal topics.

MR. CREDLE

E. E. 48—RADIO COMMUNICATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 47.

The application of electron tubes to the field of communication. The use of the triodes as an audio frequency amplifier, as a radio frequency amplifier and as an oscillator. The characteristics of other multi-element tubes.

MR. CREDLE

E. E. 49—ADVANCED INDIVIDUAL PROBLEM—Semester 1 or 2 (2 and 0) 2 cr.

Intended to enable a limited number of students to undertake specific projects in which they may be especially interested. The laboratories afford excellent facilities for this work.

DEPARTMENT STAFF

E. E. 50—POWER STATIONS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 41 or 43.

A course covering the general subject of economic production of electrical energy and the study of typical arrangements of generating equipment in steam and in hydro-stations.

MR. RHODES

E. E. 52—ELECTRICAL DISTRIBUTION—Semester 2 (2 and 0) 2 cr.

Technical and economic features of local wiring systems; city and rural distribution; control and protective equipment. Includes reference reading and preparation of papers for class presentation.

MR. TINGLEY

E. E. 54—ILLUMINATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 41 or 43.

Fundamental principles of illumination embracing light sources; photometry; reflection and absorption; color; street, residence, industrial and commercial lighting.

MR RHODES

E. E. 56—ELECTRIC TRANSIENTS—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* E. E. 32.

To enable a few of the more advanced electrical engineering students to obtain a clearer conception of the physical phenomena and mathematical analysis of electrical circuits and machines in the transient state and to verify the theory involved with oscillographic observations.

MR. TINGLEY

## ENGLISH

MR. DANIEL

|             |             |           |            |            |
|-------------|-------------|-----------|------------|------------|
| MR. BRADLEY | MR. TAYLOR  | MR. LANE  | MR. KINARD | *MR. COOKE |
| MR. LUCAS   | MR. TRAWICK | MR. HENRY | MR. RAY    | MR. DEAN   |

ENGLISH 15, 16—COMPOSITION AND AMERICAN LITERATURE—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To train the student in the use of correct, accurate, and effective language and to acquaint him with outstanding works of the major American authors. *Principal Topics:* Some review of principles of grammar and punctuation; principles of and practice in the various units of composition, especially the paragraph; letter writing; vocabulary; supplementary reading and classroom reports; selected works from the principal American authors. (*Century Collegiate Handbook*—Greever and Jones; *The College Reader*—Lovett and Jones; *Practice Handbook in English*—Jones; a dictionary.)

|            |             |            |            |          |
|------------|-------------|------------|------------|----------|
| MR. TAYLOR | MR. LANE    | MR. KINARD | *MR. COOKE |          |
| MR. LUCAS  | MR. TRAWICK | MR. HENRY  | MR. RAY    | MR. DEAN |

ENGLISH 21, 22—ENGLISH LITERATURE AND ADVANCED COMPOSITION—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 15 and 16.

*Purpose:* To give the student a more intimate knowledge and appreciation of Nineteenth Century English literature; to cultivate his powers of composition for accurate expression. *Principal Topics:* An intensive study of outstanding authors of the Romantic and Victorian periods of English literature; supplementary reading from the best authors; periodic

themes based upon reading and other assignments; classroom discussion of themes; consultation with students for individual discussion. (*The Literature of England*, Vol. II—Watt, Wood and Anderson.)

MR. BRADLEY

MR. TAYLOR

MR. LANE

MR. KINARD

\*MR. COOKE

MR. LUCAS

MR. RAY

ENGLISH 31—PUBLIC SPEAKING—Semester I (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To train the student in the art of practical public speaking. *Principal Topics:* The improvement of pronunciation, enunciation, voice, and stage presence; outlining and delivery of original speeches; impromptu and extemporaneous speaking; debate; parliamentary practice. (*Better Speech*—Woolbert and Weaver.)

MR. DANIEL

MR. BRADLEY

ENGLISH 32—BUSINESS LAW—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To fix the principles of Business law in the student's mind with the view of helping him to avoid legal difficulties. *Principal Topics:* Origin and purpose of laws; contracts; agency; negotiable instruments; sales; personal and real property; cases. (*American Business Law*—Frey.)

MR. DANIEL

MR. BRADLEY

ENGLISH 43, 44—SHAKESPEARE—Semesters I and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give the student as comprehensive an acquaintance with the dramatic work of Shakespeare as possible. *Principal Topics:* A general approach to appreciation of plays from the point of view of the theater; Shakespeare's development as a dramatist; matters of character and presentation of individual plays. (A complete edition of Shakespeare's plays; *The Facts about Shakespeare*—Neilson and Thorndike.)

MR. TAYLOR

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\*On leave.



ENGLISH 45—NEWS WRITING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give additional training in English through the project method. *Principal Topics:* Gathering the news; kinds of news stories; structure and style; lead; reporting; interviewing; reports.

MR. DANIEL

ENGLISH 46—BUSINESS ENGLISH—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 31 and 32.

*Purpose:* To give training in business customs and practices. *Principal Topics:* Business letters and forms; methods of approach; securing and conducting interviews; presenting plans and propositions; salesmanship; reports; developing a pleasing personality. (*Salesmanship*—Fernald.)

MR. DANIEL

ENGLISH 47, 48—CHAUCER—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give the student familiarity with the language, verse forms, and stories of Chaucer; to cultivate a grasp of fourteenth century thought and literary motivation. *Principal Topics:* (First Semester) Reading from the prologue and the Canterbury Tales with other short selections; supplementary reading from contemporary and later critical authors; term paper; (Second Semester). Detailed study of Troilus and Criseyde; term paper. (*The Works of Chaucer.*)

MR. BRADLEY

ENGLISH 49—AGRICULTURAL JOURNALISM—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give training in the fundamentals of journalism; to apply this training to the actual writing and publishing of agricultural copy. *Principal Topics:* Introductory study of the basic principles of journalism; detailed study of agricultural news story, feature story, editorial, and miscellany; periodic publication of agricultural news stories in

country weeklies; publication of at least one feature story in an agricultural journal. (*Agricultural Journalism*—Crawford and Rogers.)

MR. BRADLEY

ENGLISH 50—THESIS—Semester I (0 and 2) 2/3 cr.

*Purpose:* To give the student practice in making research and presenting the results in proper form. *Principal Topics:* Statement of the problem; object and scope of the investigation; history of the problem; possible application of results; plan of procedure. (To be prepared under the direction of a member of the School of General Science and approved as to content by him and as to form by a representative of the English department.)

ENGLISH 53, 54—INTRODUCTION TO DRAMA—Semesters I and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To offer a systematic study of the principles and progress of drama from the time of Aeschylus to the present day. *Principal Topics:* Dramatic history and criticism, representative plays, the stage and theatrical conditions, the continental background of English drama, influence of life of the time on authors, actors and managers, written exercises in dramatic criticism, class discussions of new trends in legitimate drama and movies, controlled breathing, voice training, emotional expression, and the theory of acting. (*Introduction to Drama*—Hubbell and Beaty.)

MR. LANE

ENGLISH 57, 58—SELECTED MASTERPIECES FROM ENGLISH LITERATURE—Semesters I and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To help students learn and appreciate a variety of literary masterpieces, selections not included in other courses at Clemson. *Principal Topics:* Selections studied vary with classes—a representative list for a semester: *Paradise Lost* (6 books); *Gulliver's Travels*; *Beowulf*; *Diary of Samuel Pepys* (selections); Boswell's *Johnson* (selections); Pope's *Iliad* (selections); *Tom Jones*; Bacon's essays; *Pilgrim's Progress*. (No general text. Cheap editions of some selections are bought.)

MR. KINARD

## ENTOMOLOGY\*

MR. SHERMAN

MR. DUNAVAN

ENT. 31—INTRODUCTION AND APPLIED ENTOMOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To give agricultural students information concerning the structure, life-history, and habits of insects in general and to provide instruction in control of the principal injurious species. *Principal Topics:* Insect structure, metamorphosis, habits, characteristics of the principal orders of insects, methods of control of injurious forms. (*Applied Entomology*—Fernald.)

MR. SHERMAN

ENT. 32—GENERAL ENTOMOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* Designed especially for students who wish to choose Entomology as their life-work. The aim is to provide basic training in the general phases of Entomology. *Principal Topics:* Near relatives of insects; history of Entomology; insect metamorphosis; classification, habits, and characteristics of the members of the principal families in all orders of insects; technique of collecting and preserving insects. (*Manual for the Study of Insects*—Comstock.)

MR. DUNAVAN

ENT. 41—ECONOMIC ENTOMOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* To so equip the student that he will be able to recognize injurious species of insects and their damage and be able to control them intelligently. *Principal Topics:* Effect of cultivation on insect populations; peculiarities of field crops and their insect enemies; identification, life-history, and control of insect enemies of corn, wheat, oats, clover, alfalfa, peas, beans, tobacco, cotton, sugar cane, stored grain, cattle, horses, sheep, swine, poultry, and man. (*Destructive and Useful Insects*—Metcalf and Flint.)

MR. DUNAVAN

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\*Students who major in Entomology are required to take certain courses in Zoology which are listed under that subject. See Zoology.

ENT. 42—ECONOMIC ENTOMOLOGY—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* To train students in the recognition of fruit and vegetable insects and in methods of control of these pests. *Principal Topics:* Beneficial insects, history of insect control, host resistance, theory of insect control, chemistry and preparation of common insecticides, special requirements of control of fruit and vegetable insects, identification, life-histories, and control of insect enemies of apples, pears, peaches, plums, cherries, grape, bush fruits, strawberries, and all vegetable crops. (*Destructive and Useful Insects*—Metcalf and Flint.)

MR. DUNAVAN

ENT. 44—BEEKEEPING—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Junior or Senior standing.

*Purpose:* To provide the student with the knowledge and actual practice of modern beekeeping which will enable him to become a successful beekeeper. *Principal Topics:* Activities of the colony, life-history and metamorphosis of bees, spring, fall and winter management; enemies of bees, swarm control, production of honey, methods of wintering. (*ABC and XYZ of Beekeeping*—Root.)

MR. DUNAVAN

ENT. 45—INSECT MORPHOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* Designed especially for students majoring in Entomology. The aim is to give the student detailed knowledge of the external and internal morphology of insects. *Principal Topics:* Structure of the insect head, thorax, abdomen, and body appendages, structure of muscles, external and internal skeleton, alimentary canal, reproductive, respiratory, and nervous systems, structure and function of glands and sense organs, physiology of respiration and digestion. (Laboratory: *Anatomy of Insects*—Comstock & Kellogg.)

MR. DUNAVAN

ENT. 46—SYSTEMATIC ENTOMOLOGY—Semester 2 (1 and 4) 2 1/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To give students specializing in Entomology training in identification of insects by the use of keys. *Principal Topics:* Theory of nomenclature, philology of scientific names, important taxonomists of the past and present, detailed taxonomic study of selected groups of insects.

MR. SHERMAN



ENT. 47—PARASITOLOGY—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Zoology 12 or 21 and Entomology 31.

*Purpose:* To give technical training in Human Parasitology. Special emphasis is placed on life-cycles of parasites and on identification of the insect carriers and transmitters of parasites. *Principal Topics:* Protozoa, flukes, tapeworms, roundworms, medical entomology.

MR. DUNAVAN

ENT. 51 and 52—SEMINAR—Semesters I and 2 (1 and 0) 1 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To train students specializing in Entomology in presenting short talks on scientific topics. To present miscellaneous information not given in regular courses but of value to professional Entomologists. *Principal Topics:* Study of various technical journals, lives of famous Entomologists, tropisms of animals, insect ecology.

MR. DUNAVAN and other staff members.

ENT. 59—INTRODUCTION TO RESEARCH—Semester I (1 and 2) 1 2/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To familiarize the student with research methods in Entomology and to enable each student to gather data and write a graduation thesis. *Principal Topics:* Outlining a problem in research, bibliographic methods, graphic presentation of data, reviews of published papers on entomological technique, practical photography.

MR. DUNAVAN

## FRENCH

MR. RHYNE

MR. DEAN

FRENCH 11, 12—BEGINNER'S FRENCH—Semesters I and 2 (3 and 0) 3 cr.

*Purpose:* To provide the student with a foundation upon which, by subsequent work, he can build up a reading knowledge of French. *Principal Topics:* The fundamentals of grammar with emphasis on pronunciation and the learning of idioms, conversation and dictation. In the second semester a reader will be used.

MR. RHYNE      MR. DEAN

FRENCH 21, 22—SECOND-YEAR FRENCH—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To help the student acquire a reading knowledge of French, to appreciate some of the beauties of French literature, and to read scientific books. *Principal Topics:* Review of grammar, with especial attention to irregular verbs; conversation and dictation continued, prose readings from such authors as Balzac, Daudet, Dumas, Hugo, Loti, Maupassant and Merimee.

MR. RHYNE

### GEOLOGY AND MINERALOGY

MR. CALHOUN

MR. GEE

GEOL. 21—AGRICULTURAL GEOLOGY—Semester 1 (3 and 0) 3 cr.

*Purpose:* In this course the student is shown the relationships existing between geology and practical agricultural problems, especially those in connection with soil formation and adaptation. *Principal Topics:* Soil making minerals and rocks; formation of soils from rocks; the question of the relation of underground water to springs, wells, and artesian wells; drainage problems and soil water are considered. The soil series are taken up with relation to the rocks from which they are derived and the geologic agents which aid in their formation. (*Agricultural Geology*—Emerson.)

MR. CALHOUN

GEOL. 23, 24—GENERAL GEOLOGY—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with geology as applied not only to a thorough enjoyment of nature, but also to its many practical applications. *Principal Topics:* These courses emphasize topographic forms and their origin. The earth is considered first as a member of the solar system, and from this the evolution of the earth through all of its changes to the geography and life of the present day is traced. Special attention is given to the study of topographic and geologic maps. (*College Geology*—Chamberlin and Salisbury.)

MR. GEE

GEOL. 33, 34—MINERALOGY—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give to students a comprehensive knowledge of crystallography, mineralogy, and blowpipe analysis. *Principal Topics:* The first semester is devoted to crystallography and optical mineralogy; the

second is descriptive and determinative mineralogy. Crystallography is taught by lectures, with the laboratory work based on models and natural crystals. Mineralogy and blowpipe analysis enable the student to identify readily all but the rarer minerals. (*Blowpipe Analysis*—Moses and Parsons.)

MR. CALHOUN

GEOL. 42—METEOROLOGY—Semester 2 (2 and 0) 2 cr.

*Purpose:* A course designed to give the general principles of meteorology and climatology as applied to farming, aviation, and to those sciences which require a knowledge of such principles. *Principal Topics:* The course concerns itself in detail with those elements which control the weather, such as temperature, pressure, wind, humidity, clouds, and precipitation. The study of weather maps and conclusions to be drawn from them are made an important part of the course. (*Meteorology*—Milham.)

MR. CALHOUN

GEOL. 43—ENGINEERING GEOLOGY—Semester 1 (2 and 0) 2 cr.

*Purpose:* To show the practical application of geology to problems of engineering. *Principal Topics:* Materials from the earth's crust which the engineer must use; structural geology which gives an idea how such material is arranged; dynamic geology which emphasizes both those forces which tear the earth down and those which build it up. Topographic and geologic maps are used extensively in connection with the text. (*Elements of Engineering Geology*—Ries and Watson.)

MR. CALHOUN

GERMAN

MR. RHYNE

GERMAN 11, 12—BEGINNER'S GERMAN—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To provide the student with a foundation upon which, by subsequent work he can attain a reading knowledge of German. *Principal Topics:* The essentials of German grammar. Stress is laid on pronunciation, conversation, and drill in the fundamental constructions. Dictation is given throughout the year. In the second semester an elementary reader is used.

MR. RHYNE

GERMAN 21, 22—SECOND-YEAR GERMAN—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To help the student to build up a reading knowledge of German, to appreciate some of the beauties of German literature, and to read scientific books. *Principal Topics:* Review of grammar; conversation and dictation continued; easy lectures in German; prose readings from such authors as Baumbach, Freytag, Hauff, Storm, and Wildenbruch.

MR. RHYNE

### GOVERNMENT

MR. GATES

MR. EPTING

MR. WALKER

GOV. 12—AMERICAN GOVERNMENT AND POLITICAL PARTIES—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the system of American Federal Government. *Principal Topics:* The Constitution, Senate, House of Representatives, joint congressional activities, powers of Congress, President, executive departments, independent establishments, Judiciary, relation to the states and territories, citizenship, international relations, political parties.

MR. GATES

MR. EPTING

MR. WALKER

GOV. 16—AMERICAN GOVERNMENT AND POLITICAL PARTIES—Semester 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the student with the system of American Federal Government. *Principal Topics:* The Constitution, Senate, House of Representatives, joint congressional activities, powers of Congress, President, executive departments, independent establishments, Judiciary, relation to the states and territories, citizenship, international relations, political parties.

MR. EPTING

MR. WALKER

GOV. 41—GOVERNMENT—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Permission of instructor.

*Purpose:* To acquaint the student with a few of the more important governmental systems of the world with a special emphasis upon the United States. *Principal Topics:* Political fundamentals, political funda-



mentals in the United States; American processes of government, and present day problems of government in the United States. (*The American Problem of Government*—Maxey.)

MR. EPTING      MR. WALKER

GOV. 42—STATE AND LOCAL GOVERNMENT IN SOUTH CAROLINA—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Government 12 and permission of the instructor.

*Purpose:* To familiarize the student with the way in which government is actually carried on in South Carolina. *Principal Topics:* Place of the state in the nation, the constitution, legislature, executive, judiciary, state administration, state finance, economic and social functions, county government, municipal government, popular control. (*Source material will be used instead of textbook.*)

MR. EPTING

## HISTORY

MR. HOLMES

MR. EPTING

HISTORY 14—AMERICAN ECONOMIC HISTORY—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To teach the student to think in terms of economic and social forces. *Principal Topics:* Commercial Revolution of Europe of the fifteenth century, colonization, mercantilism, industrial revolution, economic aspects of the several American wars, the westward movement, transportation, rise of labor, decline of laissez faire, recent agricultural development. (*A History of American Economic Life*—Kirkland.)

MR. HOLMES

MR. EPTING

HISTORY 31, 32—HISTORY OF CIVILIZATION—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Open only to Juniors and Seniors.

*Purpose:* To inform the student in a general way of all the outstanding civilizations of the past. *Principal Topics:* Egypt with its monuments and religion; Babylonian law and commerce; Aegean culture, introduction of the horse, iron, and Indo-European literature; Hellenic and Hellenistic cultures: art, literature, philosophy, science; Roman law, ex-

pansion, and civilization; the feudal system; medieval art; rise of modern states and capitalism; Age of Louis XIV; Age of Reason; modern science, industry and art. (*History of Civilization*—Thorndike.)

MR. HOLMES

## HORTICULTURE

MR. MUSSER

MR. NEWMAN      \*MR. ANDREWS      MR. SEFICK      MR. EDMOND

HORT. 22—GENERAL HORTICULTURE—Semester 2 (2 and 3) 3 cr.

*Purpose:* To give the student training which will enable him to apply the fundamentals of plant growth to the growth and development of horticultural crops, with particular emphasis on the home orchard, home garden, and home beautification. *Principal Topics:* A review of fundamental plant processes and plant structures. The influence of temperature, light, water, and nutrients on vegetation and reproduction. A study of principal horticultural practices, including seedage, propagation, sites and soils, fertilization, plant growing, cultivating, harvesting, storing, marketing, and pest control. A study of principal horticultural crops, including the fruit crops—their fruiting habits, training, pruning, and spraying; the vegetable crops, including their growth habits and methods for successful production; and the ornamental crops, including their place, selection, and arrangement in the home. (*General Horticulture*—Edmond, Andrews, and Musser.)

MR. MUSSER      MR. EDMOND      MR. ANDREWS

HORT. 31—PLANT PROPAGATION AND NURSERY MANAGEMENT—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student a thorough knowledge of the methods of managing a commercial nursery and propagating plants of all kinds. *Principal Topics:* Methods of propagation; time, manner, and material for making cuttings, temperature and media for rooting cuttings of ornamental trees, shrubs and flowering plants; propagating structures, soils, fertilizers, and management methods for commercial nurseries. Practical instruction given in field and greenhouse. (*The Modern Nursery*—Laurie and Chadwick.)

MR. NEWMAN

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\*On Leave

HORT. 32—ELEMENTARY LANDSCAPE DESIGN—Semester 2 (2 and 2)  
2 2/3 cr.

*Prerequisite:* Hort. 31.

*Purpose:* To give the student a practical course in general landscape gardening, a thorough knowledge of plant materials used in landscape designing. *Principal Topics:* Kinds of landscape gardens, principles of landscape art, improvement of home, school grounds, and park areas; mapping, designing, identification, an adaptation of decorative plants to landscape work. (Assigned references.)

MR. NEWMAN

HORT. 33—PRINCIPLES OF VEGETABLE PRODUCTION—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the student a knowledge of the basic principles underlying the methods used in growing vegetables. *Principal Topics:* Types and classification of vegetables, plant growing, forcing and forcing structures, seeds, use and value of the various fertilizer materials, transplanting, value of cultivation, irrigation, relation of water to quality, storage, review of important experimental work. (*Vegetable Crops*—Thompson.)

MR. EDMOND

HORT. 41—SYSTEMATIC POMOLOGY AND SMALL FRUIT CULTURE—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

PART I—SYSTEMATIC POMOLOGY.

*Purpose:* To acquaint students with the many and varied characters of deciduous and citrus fruits, both plant and fruit; to classify and identify varieties. *Principal Topics:* The structure of fruit plants—roots, stems, leaves, flowers, fruit, etc.; physiological characters; methods of work in systematic pomology and of classification; habitat, history, color, form, structure, quality, flavor and use of pome, drupe, bramble and heath fruits, grapes, strawberries, currants and gooseberries, and various citrus fruits; judging and displaying fruits. (*Systematic Pomology*—Hedrick.)

## PART II—SMALL FRUIT CULTURE.

*Purpose:* To give the student a knowledge of the principles of production and preparation for market of small fruits. *Principal Topics:* Varieties, soils, sites, culture, fertilizers, harvesting, and preparation for marketing of grapes, strawberries, dewberries, blackberries, raspberries, and other small fruits. (*Small Fruits*—Shoemaker.)

MR. MUSSER

\*HORT. 43—THE BREEDING OF HORTICULTURAL CROPS—Semester I (2 and 2) 2 2/3 cr.

*Purpose:* To train the student to apply the principles of genetics to the improvement of horticultural crop plants. *Principal Topics:* Genetics and breeding practices; the technique of selection, varietal and species crossing, sterility, and incompatibility, mutations and chimeras; the origin of new forms. (Assigned References.)

MR. EDMOND

HORT. 45—LANDSCAPE DESIGN—Semester I (1 and 3) 2 cr.

*Prerequisite:* Hort. 31.

*Purpose:* To familiarize the student with plant materials used in landscape designing for home grounds, parks, and small estates. *Principal Topics:* Systematic study of trees, shrubs, and herbaceous plants used on landscape designs; practical problems to be worked with the same attention to details as is necessary in actual practice of landscape designing.

HORT. 46—ADVANCED LANDSCAPE DESIGN—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 31, 32, and 45.

*Purpose:* To prepare the student to engage in Landscape Designing as a profession. *Principal Topics:* Classification of trees, shrubs and flowering plants with special reference to their use in landscape designing; soils, manures and fertilizers; establishing and maintaining lawns on large estates; vines and other ground covers; detail estimates of cost of developing large landscape problems; advanced design. (Assigned references.)

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\*Hort. 43 and Hort. 47 are given in alternate years. Hort. 43 will be offered in 1938-1939.



\*HORT. 47—NUT CULTURE AND SPRAYS AND SPRAYING—Semester I (2 and 2) 2 2/3 cr.

PART I—NUT CULTURE.

*Purpose:* To give the student a knowledge of the principles of production and preparation for market of the principal nut crops. *Principal Topics:* Propagation, varieties, soils, sites, cultural methods, pollination problems, fertilizers, harvesting, and grading of pecans, walnuts, filberts, and almonds. (Assigned references.)

PART II—SPRAYS AND SPRAYING.

*Purpose:* To give the students a working knowledge of the properties and application of fungicides and insecticides in the control of pests of horticultural crops. *Principal Topics:* Classes of fungicides and insecticides; their properties, effectiveness, influence on plant functions, costs, and the methods of application. (References.)

MR. ANDREWS

HORT. 52—COMMERCIAL POMOLOGY—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the students a knowledge of the methods of establishing and managing a large fruit orchard. *Principal Topics:* Fruit bud formation, rest period, and water responses of fruit plants; fruit tree soils; fruit setting and self-unfruitfulness of the important fruits; orchard soil management and responses of various fruits to applications of fertilizers; fundamental principles of and response of fruit trees to pruning; effect of climatic differences; freezing of tissues and means of avoiding injury; harvesting, transportation, storage. (*Fundamentals of Fruit Production*—Gardner, Bradford and Hooker; *Orchard and Small Fruits*—Auchter and Knapp.)

MR. MUSSER

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\*Hort. 43 and 47 are given in alternate years. Hort. 43 will be offered in 1938-1939.

HORT. 54—TRUCK CROPS—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the student a thorough knowledge of the truck industry with special reference to growing and market truck crops along the Atlantic coast. *Principal Topics:* Plant characteristics, varieties, soils, fertilizers, cover crops, water requirements, harvesting and preparation for market of asparagus, beans, cabbage, Irish potatoes, sweet potatoes, cantaloupes, watermelons, tomatoes, and various less important crops. (*Southern Vegetable Crops*—Ware; Assigned References.)

MR. EDMOND

HORT. 56—LANDSCAPE DESIGN—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* Hort. 31, 43.

*Purpose:* To give the student a thorough knowledge of and practical experience in landscape problems of large areas. *Principal Topics:* Civic improvements, mill villages, public buildings, squares, parks, storm water control, water courses, lakes, lawns, drives, and walks; trees and shrubs and their requirements; study of finished problems in Landscape Design, original problems, field work, and drafting.

MR. NEWMAN

HORT. 61-62—SPECIAL PROBLEMS—Semesters 1 and 2 (1 and 0) 1 cr.

*Purpose:* To give experience in interpreting and analyzing reports of recent horticultural investigations. *Principal Topics:* Recent research work on various phases of horticulture, methods of conducting investigations, preparation of report of investigations. (Assigned References from various sources.)

MR. MUSSER                      AND HORTICULTURE STAFF

## MATHEMATICS

MR. MARTIN

MR. HUNTER   MR. SHELDON   MR. BURTON   MR. EDWARDS   MR. LAGRONE  
MR. COKER   MR. BELL   MR. KIRKWOOD   MR. KELLY

MATH. 11—PLANE TRIGONOMETRY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Algebra and Plane Geometry.

*Purpose:* To give the student a thorough knowledge of the principles of plane trigonometry together with its various applications to related

problems and exercises. *Principal Topics:* Trigonometric functions of an acute angle, reciprocal functions, functions of complementary angles, fundamental relations between the functions, functions of any angle; logarithms; the right triangle; solutions of problems in heights and distances, projections, forces, velocities, and accelerations, isosceles triangles, polygons, and related circles; oblique triangles, laws of sines, cosines, and tangents with their various applications in the solution of triangles; the functions of the sum and difference of two angles, the double angle, and the half angle; inverse functions and trigonometric equations. (*Plane Trigonometry*—Ewing.)

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|-------------|------------|-------------|--------------|
| MR. HUNTER  | MR. BURTON | MR. SHELDON | MR. EDWARDS  |
| MR. LAGRONE | MR. BELL   | MR. COKER   | MR. KIRKWOOD |
|             |            |             | MR. KELLY    |

MATH. 12—COLLEGE ALGEBRA AND ANALYTIC GEOMETRY—Semester 2  
(5 and 0) 5 cr.

*Prerequisite:* Mathematics 11.

*Purpose:* To drill the student on the fundamental principles of algebra which are absolutely essential in the pursuit of his higher mathematics and to give him a thorough knowledge of the working principles of analytic geometry. *Principal Topics:* The first month will be devoted to a rapid review of the fundamental principles of algebra with special emphasis on the subjects which will come up in subsequent courses in mathematics. (*Analytical Geometry*—Mason and Hazard.)

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| MR. HUNTER  | MR. BURTON | MR. SHELDON | MR. EDWARDS  |
| MR. LAGRONE | MR. BELL   | MR. COKER   | MR. KIRKWOOD |
|             |            |             | MR. KELLY    |

MATH. 17, 18—FIRST YEAR COLLEGE MATHEMATICS—Semesters 1 and 2  
(3 and 0) 3 cr.

*Prerequisite:* Algebra and Plane Geometry.

*Purpose:* To prepare the student to cope with the problems arising in the general science and pre-medical courses. *Principal Topics:* A course similar to Mathematics 11, 12, and 15, treating the fundamental topics met with in the sciences. (*First Year College Mathematics*—Hill and Linker.)

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| MR. HUNTER | MR. SHELDON | MR. BURTON | MR. EDWARDS | MR. LAGRONE |
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MATH. 21—DIFFERENTIAL CALCULUS—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Mathematics 12.

*Purpose:* To give the student a thorough working knowledge of differential calculus and its various applications. *Principal Topics:* A study of the differentiation of algebraic and transcendental functions, successive differentiation and development of functions, functions of two variables, tangents, normals, and asymptotes, and application of the derivative in mechanics. (*The Calculus*—Dalaker and Hartig.)

MR. MARTIN      MR. HUNTER      MR. SHELDON      MR. BURTON

MATH. 22—INTEGRAL CALCULUS—Semester 2 (5 and 0) 5 cr.

*Prerequisite:* Mathematics 21.

*Purpose:* To make the student proficient in solving the many problems that arise in this subject, especially those arising in the various branches of engineering. *Principal Topics:* Elementary forms of integration, integration of rational fractions, the definite integral, successive reductions, integration of two variables, geometric applications, multiple integrals, and practical problems arising in engineering subjects. (*The Calculus*—Dalaker and Hartig.)

MR. MARTIN      MR. HUNTER      MR. SHELDON      MR. BURTON

MATH. 23—DIFFERENTIAL CALCULUS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Mathematics 12.

*Purpose:* To give those students taking the textile course the fundamental principles of differential calculus and some of its important applications. *Principal Topics:* Differentiation of algebraic and transcendental functions, with numerous applications in maxima and minima, curve tracing, and velocity and acceleration.

MR. MARTIN      MR. SHELDON

MATH. 24—INTEGRAL CALCULUS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Mathematics 23.

*Purpose:* To drill the student in fundamental principles and applications of integral calculus. *Principal Topics:* A study of the elementary form of integration, integration of rational fractions, the definite integral, geometric applications, multiple integrals, and practical problems arising in engineering subjects. (*The Calculus*—Dalaker and Hartig.)

MR. MARTIN      MR. SHELDON



MATH. 25, 26—INDUSTRIAL MATHEMATICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To emphasize the practical side of Arithmetic, Geometry, Algebra, and Trigonometry. *Principal Topics:* Stress is to be placed upon the working of a great many problems from carpentry, the machine shop, construction work, surveying, and allied subjects, in order to obtain proficiency in carrying out a mathematical calculation and achieving the correct result. (*Practical Mathematics*—Palmer.)

MR. BURTON

MATH. 31—ADVANCED CALCULUS—Semester 1 (2 and 0) 2 cr.

Open to juniors and seniors with a good grade in Math. 22.

*Purpose:* To give an understanding of the advanced calculus and its application to problems from physics, chemistry, and engineering. *Principal Topics:* Double and triple integration, partial differentiation, development of a function in a series, approximations, curve fitting, curve tracing, indeterminate functions, etc.

MR. SHELDON

MATH. 32—DIFFERENTIAL EQUATIONS—Semester 2 (2 and 0) 2 cr.

Open to juniors and seniors with a good grade in Math. 22.

*Purpose:* To give the student a working knowledge of the methods used to solve the elementary differential equations of engineering, chemistry, and physics. This course is intended for those who expect to do graduate work or who desire a greater knowledge of the methods employed in scientific and engineering problems. *Principal Topics:* Equations of the first order and first degree; linear equations with constant coefficients; certain particular forms of equations. (Kell's *Elementary Differential Equations*.)

MR. SHELDON

## MECHANICAL ENGINEERING

MR. EARLE

MR. CURTIS      MR. FREEMAN      MR. FERNOW      MR. SHENK

MR. PHILPOT   MR. SAMS      MR. MARSHALL   MR. DUBOSE   MR. SHIGLEY

M. E. 12—FORGE—Semester 1 or 2 (0 and 4) 1 1/3 cr.

*Purpose:* To give the student a knowledge of the methods of making iron and steel forgings for use in industry. *Principal Topics:* A study of forge equipment; materials used in forgings; selection of materials;

methods of working and treating, inspection, and classification of forgings. Part of the time is devoted to a study of tool steel forgings. Lectures and demonstrations accompany this work.

MR. PHILPOT

M. E. 13—WOODWORK—Semester I or 2 (0 and 2) 2/3 cr.

*Purpose:* A course in woodwork planned to familiarize agricultural students with the more common tools used in building and repairing of farm equipment. *Principal Topics:* Reading working drawings, making out complete bill of materials, getting out rough stock for a job, measuring, laying out lines, squaring up stock, sawing to lines, planing to dimension, making and fastening common joints.

MR. MARSHALL

M. E. 14—FOUNDRY—Semester I or 2 (0 and 2) 2/3 cr.

*Purpose:* To give a thorough knowledge of the methods and practices used in the making of ferrous and non-ferrous castings. *Principal Topics:* A study of the materials used in castings, the cupola, moulding sands, cores, patterns, the crucible furnace, the cleaning and inspection of castings. Time is also given to a study of the foundry from an industrial standpoint.

MR. PHILPOT

M. E. 15—WOODWORK—Semester I or 2 (0 and 2) 2/3 cr.

*Purpose:* A short course in woodwork consisting of lectures and shop practice for textile students. *Principal Topics:* Hand tools, sharpening tools, planing and squaring to dimensions, construction of common joints, gluing, and clamping.

MR. MARSHALL

M. E. 17—WOODWORK AND PATTERN MAKING—Semester I or 2 (0 and 6) 2 cr.

*Purpose:* To give Engineering students a knowledge of the tools and machinery used in woodwork and pattern making. This is accomplished through lectures and shop practice. *Principal Topics:* Hand tools, machine tools on planing and squaring to dimensions, common joints, miscellaneous constructions, gluing and clamping, wood turning and finishing, kinds of wood for various uses, source of supply, determination of types of patterns by the equipment of foundry and machine shop. Allowances and their effect on patterns, tools used, templets, core prints, pattern construction, core box and cores, skeleton patterns. (*Woodwork and Pattern Making—Marshall.*)

MR. MARSHALL

M. E. 21—METALLURGY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 11 and 12; *Suggested:* One year of Physics.

*Purpose:* To give the student an elementary knowledge of the metallurgy of Iron and Steel. *Principal Topics:* A study of ores and their sources; fluxes and heating mediums; the operation of the blast furnace; the open hearth, the Bessemer Converter; the crucible furnace; a study of the various alloys of iron, their production, and use. Some time is given to commercial processes of production. (Text to be selected.)

MR. PHILPOT

M. E. 22—MATERIALS OF ENGINEERING—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To give a brief but complete study of the materials used in Engineering and industry. *Principal Topics:* The sources of materials used in industry; a study of wood, concrete, ferrous alloys, non-ferrous materials, brick, tile, and other building materials. This course is designed to help the engineer to select the proper material for any given job. (Text to be selected.)

MR. PHILPOT

M. E. 23, 24—MACHINE SHOP—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Trigonometry, Mechanical Drawing.

*Purpose:* To give the student a practical knowledge of machine shop methods from the standpoint of the industrial engineer. *Principal Topics:* General application of bench tools; design, application, and methods employed with the lathe, drill, shaper, planer, milling machine, and grinder; study of highly specialized machinery in speed production work and study; practice in industrial management.

MR. FREEMAN

M. E. 31—MECHANICS (Statics)—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21 and 22; Physics 11 and 12.

*Purpose:* To give the students additional training in analysis. *Principal Topics:* Analytical methods of solution of statically determinate force systems, with application to engineering; study of center of gravity and moment of inertia of areas. (*Applied Mechanics*—Poorman.)

MR. CURTIS      MR. QUATTLEBAUM

M. E. 32—MECHANICS (Kinetics)—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 31.

Continuation of Course M. E. 31.

*Principal Topics:* Study of various types of motion, work, energy, and power, with engineering applications. (*Applied Mechanics*—Poorman.)

MR. CURTIS

M. E. 33—MECHANICAL ENGINEERING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22 or 11, 12.

*Purpose:* A general course to familiarize the student with mechanical equipment and its application to the needs of the civil engineer. *Principal Topics:* Study of fuels, combustion, steam, boilers and auxiliaries, steam engines, gas engines and elementary thermodynamics of the steam and gas cycles.

MR. SHENK

M. E. 33a—MECHANICAL LABORATORY—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Physics 22.

*Purpose:* Calibration of instruments, tests of fuels, steam engines, and gas engines. *Principal Topics:* Calibration of gauges, study of indicators, tests of coal, lubricating oils, boilers, turbines, steam engines, and gas engines.

MR. SHENK      MR. SHIGLEY

M. E. 34—MECHANICAL ENGINEERING—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22 or 11, 12.

*Purpose:* A general course to familiarize the student with mechanical equipment and its application to the needs of the textile engineer. *Principal Topics:* Study of fuels, steam boilers, and auxiliaries, steam and gas engines, and elementary thermodynamics of the steam and gas cycles.

MR. SHENK



M. E. 34a—MECHANICAL LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Purpose:* Calibration of instruments, tests of fuels, steam engines, and gas engines. *Principal Topics:* Calibration of gauges, study of indicators, tests of coal, lubricating oils, boilers, turbines, steam engines, and gas engines.

MR. SHENK      MR. DUBOSE

M. E. 35—THERMODYNAMICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22.

*Purpose:* A thorough study of the thermodynamics of steam, air heat, and refrigeration cycles. *Principal Topics:* Thermodynamic principles and definitions, properties and processes for gases, cycles of heat engines using gas, properties and thermodynamic processes of vapors, vapor cycles, flow of fluids, thermodynamics of refrigeration and compressed air cycles.

MR. EARLE      MR. SAMS

M. E. 35a—MECHANICAL LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Physics 23, 24.

*Purpose:* To familiarize the student with the instruments used and method of making friction tests on engines. *Principal Topics:* Calibration of gauges, thermometers, study of indicators, analyses of coal gas, lubricating oils, and simple engine tests.

MR. SHENK      MR. SHIGLEY

M. E. 36—HEAT ENGINES—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math 21, 22.

*Purpose:* A study of mechanical equipment and its application in central station and industrial uses, stress being laid on the thermodynamic feasibility of its use. *Principal Topics:* Fuels, combustion, steam boilers, boiler room auxiliaries, steam engines, and turbines with their auxiliaries.

MR. EARLE      MR. SAMS

M. E. 36a—MECHANICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Physics 21, 22.

*Purpose:* A continuation of M. E. 35a. *Principal Topics:* Friction tests and economy tests of steam and gas engines.

MR. SHENK      MR. DUBOSE

M. E. 36b—MECHANICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Physics 21, 22.

*Purpose:* To familiarize the student with mechanical equipment and the methods used in testing it. *Principal Topics:* Calibration of instruments, analyses of coal and lubricating oils, simple tests on steam and gas engines.

MR. SHENK      MR. DUBOSE

M. E. 38—INDUSTRIAL ENGINEERING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 23, 24.

*Purpose:* To give the student a practical knowledge of the organization, management, and operation of the industrial plant. *Principal Topics:* Basic principles, design of the plant, organizing the company. Executive control, operating methods.

MR. FREEMAN

M. E. 41—POWER PLANTS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* To study the engineering of power plants. *Principal Topics:* The design and operating characteristics of power plants and of the individual units which make up the power plant, including the economics; steam, hydro, and Diesel plants.

MR. SHENK

M. E. 41a—POWER PLANT LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* To put into practice the theory covered in M. E. 41. *Principal Topics:* Tests of turbines, engines, pumps, compressors, boilers, blowers, etc., (with formal written reports).

MR. SAMS

M. E. 42—HYDRAULICS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 32.

*Purpose:* To familiarize students with forces exerted by water and the flow of water. *Principal Topics:* Theoretical study of pressure measurement, hydrostatic pressures, discharge measuring devices, flow in pipes and open channels; brief consideration of hydrodynamics, hydraulic turbines, and hydraulic power plants. (*Hydraulics*—Daugherty.)

MR. CURTIS

M. E. 42a.—HYDRAULIC LABORATORY—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

To accompany M. E. 42.

*Purpose:* Experimental illustration by students of certain devices and principles studied in M. E. 42; also a limited number of exercises on testing of structural materials.

MR. CURTIS

M. E. 42.5—HYDRAULICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 32.

An abbreviated form of M. E. 42 without laboratory.

MR. CURTIS

M. E. 43—POWER PLANTS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 35a, 36a.

The same as M. E. 41, but more complete and detailed. (*Power Plant Engineering*—F. T. Morse.)

MR. FERNOW

M. E. 43a—POWER PLANT LABORATORY—Semester 1 (0 and 4)  $1\frac{1}{3}$  cr.

*Prerequisite:* M. E. 35a, 36a.

An amplification of M. E. 41a. (No text.)

MR. FERNOW

M. E. 44—POWER PLANTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 43.

A continuation of M. E. 43. (*Power Plant Engineering*—F. T. Morse.)

MR. FERNOW

M. E. 44a—POWER PLANT LABORATORY—Semester 2 (0 and 4)  $1\frac{1}{3}$  cr.

A continuation of M. E. 43a. (No text.)

MR. FERNOW

M. E. 45—GAS ENGINES—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* A study of the thermodynamics, construction, and design of internal combustion engines. *Principal Topics:* Theoretical cycles, engine performance, two and four stroke cycles, fuels, combustion, cooling, temperature effects, flywheels, governors, vibration and balancing, engine design.

MR. SHENK

M. E. 45a—GAS ENGINE DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26, M. E. 35, 36.

*Purpose:* The design and layout of an internal combustion engine. *Principal Topics:* To design and make an assembly drawing of an internal combustion engine.

MR. FERNOW

M. E. 46—STEAM TURBINES—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* A study of the principles of operation, construction, and design of the steam turbine. *Principal Topics:* Nozzle design, blade design, staging, governing, economy, etc.

MR. EARLE

M. E. 46a—STEAM TURBINE DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26; M. E. 35, 36. Registration in M. E. 46.

*Purpose:* To design and lay out various parts of the steam turbine. *Principal Topics:* Design of nozzle and blading, including assembly and general layout of turbine.

M. E. 47—HEATING AND VENTILATION—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35.

*Purpose:* To teach the rudiments of central heating system design and construction. *Principal Topics:* Optimum air conditions, heat loss determination, warm air systems, hot water systems, steam, vapor, and vacuum systems; fuels and fuel storage.

MR. SHENK

M. E. 47a—HEATING AND VENTILATION DESIGN—Semester 1 (0 and 3)  
1 cr.

*Purpose:* To give practical application to the principles of M. E. 47.  
*Principal Topics:* The design of three heating systems—one for a residence, one for a school building, and another for an industrial plant.

MR. SHENK

M. E. 48—HEATING AND VENTILATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 47.

*Purpose:* To teach the rudiments of air conditioning. *Principal Topics:* Physiological effects of air conditioning requirements, ventilation equipment, ventilation systems, application of automatic control; industrial exhaust systems.

MR. SHENK

M. E. 48a—HEATING AND VENTILATION DESIGN—Semester 2 (0 and 3)  
1 cr.

*Purpose:* To provide practical application of the principles of air conditioning systems. *Principal Topics:* The design of three air conditioning systems: one commercial, one industrial, and one for a hospital.

MR. SHENK

M. E. 49—MECHANICS OF MATERIALS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 31.

*Purpose:* To acquaint students with certain physical constants and stresses in structural members and machine parts. *Principal Topics:* Deformation and stress; torsion; riveted joints; supports, flexure and deflection of a beam; combined stress in short blocks; columns. (*Strength of Materials*—Boyd.)

MR. CURTIS      MR. QUATTLEBAUM

M. E. 50—AERODYNAMICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 31 and approval of instructor.

*Purpose:* To study the forces acting on a plane in flight. *Principal Topics:* History of aviation, aerodynamic theory as applied to airplane design, including calculations of performance and the study of stability and control.



M. E. 51—REFRIGERATION—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35.

*Purpose:* To teach the application of thermodynamic principles to practical problems in refrigeration. *Principal Topics:* Thermodynamics of refrigeration, heat transfer through building materials and insulation, refrigeration requirements in ice making, meat packing, and in creamery, cold storage and household refrigeration machinery and systems; some economic factors of refrigeration.

MR. SHENK

### MILITARY SCIENCE

COLONEL C. W. WEEKS

MAJOR A. H. DUMAS

MAJOR J. P. GAMMON

MAJOR R. F. WALTHOUR

MAJOR G. L. RAMSEY

MAJOR D. E. BARNETT

SERGEANT H. J. WILKINSON

SERGEANT K. R. HELTON

SERGEANT H. S. HEATH

SERGEANT R. G. MARSHALL

M. S. 11, 12—MILITARY SCIENCE AND TACTICS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To instill discipline and the habit of prompt obedience, and to develop leadership ability, while providing basic military instruction. *Principal Topics:* The course includes study of National Defense Act and ROTC, obligations of citizenship, military history and policy, current international situations, military discipline, courtesy and customs of the service, military sanitation and first aid, military organization, especially of the infantry, the theory and practice of military map reading and rifle marksmanship, instruction in command and leadership, guard duty and ceremonies. Physical drill is also given. (*National Service R. O. T. C. Manual*, Volume 1.)

MAJOR DUMAS      MAJOR BARNETT

M. S. 21, 22—MILITARY SCIENCE AND TACTICS—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* M. S. 12.

*Purpose:* Continuation of disciplinary training, additional stress on leadership, and basic instruction in infantry weapons and tactics of the smaller infantry units. *Principal Topics:* This course covers in theory and practice the automatic rifle, characteristics of infantry weapons, scout-

ing and patrolling, musketry and combat principles of the rifle squad and section; additional military history, command and leadership as would apply to infantry corporals and squad leaders, physical training and instruction in guard duty and ceremonies. (*National Service R. O. T. C. Manual*, Volume II.)

MAJOR GAMMON

M. S. 31, 32—MILITARY SCIENCE—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Purpose:* Training in Discipline and Leadership; physical development and correction of defects in posture. *Principal Topics:* Drill (close and extended order)—command and leadership. Juniors who are not members of the ROTC receive practical instruction in Military Science and Tactics. Members of the ROTC also take M. S. 33 and 34.

|                    |              |                   |
|--------------------|--------------|-------------------|
| COL. WEEKS         | MAJOR RAMSEY | MAJOR WALTHOUR    |
| MAJOR GAMMON       | MAJOR DUMAS  | MAJOR BARNETT     |
| SERGEANT WILKINSON |              | SERGEANT HELTON   |
| SERGEANT HEATH     |              | SERGEANT MARSHALL |

M. S. 33, 34—MILITARY SCIENCE AND TACTICS—Semester 1 (2 and 0) 2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. S. 22.

*Purpose:* Theoretical and practical training in weapons and the principles of their combined action, disciplinary and combat training, leadership, and training methods, to qualify as instructors. *Principal Topics:* This course consists of practical and theoretical training in aerial photograph reading; combat principles of rifle, machine gun and Howitzer platoons; pistol and pistol marksmanship; rifle and rifle marksmanship; command and leadership as would apply to infantry sergeants, first sergeants and sergeant majors; instruction in guard duty, physical drill and ceremonies, and in the duties of the senior non-commissioned officers. (*National Service R. O. T. C. Manual*, Volume III.)

MAJOR RAMSEY      MAJOR DUMAS

M. S. 41, 42—MILITARY SCIENCE—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Purpose:* Training in discipline and leadership as applies to the junior officer; physical development and correction of defects of posture. *Principal Topics:* Drill (close and extended order), command and leadership.

Seniors who are not members of the ROTC receive practical instruction in Military Science and Tactics. Members of the ROTC take M. S. 43 and 44.

|                    |              |                   |
|--------------------|--------------|-------------------|
| COL. WEEKS         | MAJOR RAMSEY | MAJOR WALTHOUR    |
| MAJOR GAMMON       | MAJOR DUMAS  | MAJOR BARNETT     |
| SERGEANT WILKINSON |              | SERGEANT HELTON   |
| SERGEANT HEATH     |              | SERGEANT MARSHALL |

M. S. 43, 44—MILITARY SCIENCE AND TACTICS—Semester 1 (2 and 0)  
2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. S. 34.

*Purpose:* Instruction in command, leadership, and combat principles; development of initiative and responsibility; administration and training methods; qualification as Junior Officers of the Infantry arm. *Principal Topics:* This course comprises a study of Military History and Policy, Military Law, company administration and supply, Officers Reserve Regulations; tanks, anti-aircraft defense, defense against chemical warfare; combat intelligence, Infantry Signal Communications; Combat Training; principles of rifle, machine gun, and howitzer platoons and companies; command and leadership as would apply to infantry lieutenants. (*National Service R. O. T. C. Manual*, Volume IV.)

COLONEL WEEKS

MAJOR WALTHOUR

## PHYSICS

MR. GODFREY

MR. BROWN

MR. REED

MR. HENDRICKS

MR. HUFF

MR. VANDIVERE

MR. KIRKWOOD

PHYSICS 11, 12—GENERAL PHYSICS—Semesters 1 and 2 (3 and 2) 3  
2/3 cr.

*Prerequisite:* Algebra, through quadratics; Plane Geometry.

*Purpose:* To give the student a knowledge of the fundamental principles of physics and to apply these principles to numerous problems. *Principal Topics:* The laws of motion of solids and fluids, heat, thermometry, the principles of electricity, magnetism, sound, and light.

MR. GODFREY MR. HENDRICKS MR. HUFF MR. VANDIVERE MR. KIRKWOOD

PHYSICS 21, 22—GENERAL PHYSICS—Semesters 1 and 2 (4 and 0) 4 cr.

*Prerequisite:* Mathematics 11 and 12.

*Purpose:* To give the student a knowledge of the fundamental theory of physics and the application of the principles to problems in engineering. *Principal Topics:* Mechanics, dynamics, thermometry, heat, magnetism, electricity, sound, and light.

MR. BROWN

MR. HENDRICKS

MR. HUFF

PHYSICS 23, 24—LABORATORY PHYSICS—Semesters 1 and 2 (0 and 3) 1 cr.

This course must be taken with Physics 21, 22.

*Purpose:* To study the application of the theory in physical phenomena, acquire skill in observation and manipulation. *Principal Topics:* Measurement of several physical constants in mechanics, heat, and light; study of electrical measurements and instruments.

MR. BROWN

MR. HUFF

MR. HENDRICKS

PHYSICS 27—GENERAL PHYSICS—Semester 1 (3 and 2) 3 2/3 cr.

*Purpose:* To study the fundamental principles of Physics as applied to problems in agriculture. *Principal Topics:* Work, power, machines, efficiency, osmosis, surface tension, heat and heat engines, magnetism, electricity, and light.

MR. REED

MR. VANDIVERE

MR. KIRKWOOD

PHYSICS 29—GENERAL PHYSICS—Semester 1 or 2 (3 and 4) 4 1/3 cr.

*Purpose:* A short course for students of agriculture with especial reference to the applications of physics. *Principal Topics:* Force, acceleration, power, machines, heat, light, sound, magnetism, and electricity.

MR. REED

PHYSICS 31, 32—MODERN PHYSICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Physics 21, 22; *Suggested:* Mathematics 21, 22.

*Purpose:* To give the student a general knowledge of the more recent developments in physics and to familiarize him with the modern methods of investigation. *Principal Topics:* Kinetic theory of gases, electron

theory, X-rays, radio activity, atomic structure, theory of quanta, cosmic rays, geophysics, astrophysics, radio, and television. (*Modern Physics—Jauncey.*)

MR. HUFF

PHYSICS 33—DESCRIPTIVE ASTRONOMY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To give a general knowledge of the facts of astronomy and to study the methods of determining latitude and longitude. *Principal Topics:* Coordinate systems and apparent motions, the planets, the sun and moon, properties of the stars. (*Introduction to Astronomy—Baker.*)

MR. GODFREY

PHYSICS 34—MAGNETISM AND ELECTRICITY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Physics 11 and 12.

*Purpose:* A course primarily for students in Agricultural Engineering. *Principal Topics:* The electric and magnetic field, potential, transformers, properties of transmission lines, storage batteries, properties of vacuum tubes.

MR. REED

PHYSICS 35—MECHANICS AND PROPERTIES OF MATTER—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* A further study of the mechanical properties of matter. *Principal Topics:* The motion of particles and of rigid bodies, gyroscopes, elasticity, surface tension, the flow of fluids, gravitation.

MR. HUFF

PHYSICS 36—HEAT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To give the student a thorough knowledge of the fundamental principles of heat measurements. Emphasis is placed on chemical applications. *Principal Topics:* Thermometry, calorimetry, change of state, kinetic theory of gases, elements of thermodynamics.

MR. HENDRICKS



PHYSICS 37—SOUND AND LIGHT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To study the laws governing the transmission of sound and light. Emphasis is placed on architectural applications. *Principal Topics:* Wave motion; velocity of sound in air and other media; sound in rooms; laws of optics, mirrors, prisms, and lenses; wave nature of light; polarization.

MR. BROWN

### POULTRY HUSBANDRY

MR. MORGAN

P. H. 32—FARM AND COMMERCIAL POULTRY PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To study the fundamental principles of poultry production and the factors necessary for profitable flock management as a farm enterprise and a commercial business. *Principal Topics:* The nature and uses of poultry products, scope of the industry and agencies involved; classification of poultry; structure of fowl; fundamentals of flock improvement, culling and judging; incubation, brooding, feeding principles and practices; poultry house construction; disease control and sanitation, and economic aspects of poultry production. (*Poultry Production*—Lippincott and Card.)

MR. MORGAN

P. H. 41—POULTRY JUDGING AND BREEDING—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Poultry Husbandry 32 and Genetics.

*Purpose:* To give the fundamental principles and practices in judging poultry for production and show, to study the principles of poultry breeding. *Principal Topics:* History and development of culling and judging for production, bases of poultry classification and standard judging, inheritance in poultry and improvement of birds through the application of genetic laws. (*Poultry Breeding*—Jull.)

MR. MORGAN

P. H. 42—POULTRY PRODUCTION AND MANAGEMENT—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Poultry Husbandry 32.

*Purpose:* To give detailed study to incubation and brooding principles and practices, to study the effects of various feeds and rations, study of management practices. *Principal Topics:* Temperature, humidity, and ventilation in relation to incubation; incubator operation; brooding and rearing methods; feeds and rations for baby chicks; growing stock, breeding stock, and laying hens; effects of feeds and rations on the character and quality of poultry products; poultry farm plan and management. (*Research Bulletins and Scientific Literature.*)

MR. MORGAN

## PSYCHOLOGY

\*MR. BREARLEY

MR. BLOOM

PSYCHOLOGY 35, 36—PSYCHOLOGY FOR TEACHERS—Semesters 1 and 2 (2 and 2) 3 cr. each semester.

*Prerequisite:* Junior standing.

*Purpose:* To acquaint students of education and others with some fundamental characteristics of human behavior. *Principal Topics:* Physiological bases of behavior, mental growth, the emotions and their expression, the learning process, individual differences and their measurement, personality, problem children, abnormal behavior. (*Psychology for Students of Education*—Gates; *Personality, Its Development and Hygiene*—Richmond.)

MR. BREARLEY

PSYCHOLOGY 46—ABNORMAL BEHAVIOR—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Psychology 35.

*Purpose:* To develop a general knowledge of abnormal behavior. *Principal Topics:* Mental defect, the psychoses and psychoneuroses, psychopathic personalities.

MR. BREARLEY

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\*On leave.

PSYCHOLOGY 47—SOCIAL PSYCHOLOGY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Psychology 35.

*Purpose:* To study the social behavior of the individual. *Principal Topics:* The development of personality, social stimulation, crowd behavior, pro-social, and anti-social conduct.

MR. BREARLEY

### RELIGION\*

MR. CROUCH

MR. GOODE

MR. VEALE

MR. CHAMBERS

RELIGION 21, 22—OLD TESTAMENT—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Sophomores. Others admitted by permission.

*Purpose:* To introduce the student to the Old Testament, its history, inspiration, and interpretation. *Principal Topics:* The books of the Old Testament studied from the standpoint of origin, literary form, and content in their historical setting. Some time will be given to their religious and ethical teachings.

MR. CHAMBERS

RELIGION 23, 24—LIFE OF CHRIST—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Sophomores. Others admitted by permission.

*Purpose:* To acquaint the students with the facts in the life of Christ in the order of their occurrence. *Principal Topics:* Historical study of the Gospels: their parallelism, the similarity and differences in the four narratives, brief glance at synoptic criticism, authorship and historical value of the Gospel of John, the measure of the importance and influence of facts studied, and a brief analysis of the more important of Christ's discourses. (*A Harmony of the Gospels*—Robertson.)

MR. GOODE

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\*This work is not financed by the College; it is offered as free elective.

RELIGION 31, 32—NEW TESTAMENT OUTLINE—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Juniors. Others admitted by permission.

*Purpose:* To study the beginning and the spread of Christianity during the New Testament period. *Principal Topics:* Conditions in the Roman world at the beginning of the Christian era; those factors which later aided in the spread of the Gospel; a study of the life and works of Jesus Christ, as the Founder of Christianity, according to Matthew's Gospel; the spread of the Gospel as contained in the Acts of the Apostles and the Epistles.

MR. CROUCH

RELIGION 41, 42—ETHICS IN RELIGION—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Seniors. Others admitted by permission.

*Purpose:* To give a general knowledge of the history and development of religious and moral ideals. *Principal Topics:* The nature and scope of conduct, the relationship of man's conduct to his religious loyalties, the inseparable connection between religious and moral ideals. The historical development: Pre-Christian, Greek, Roman, Hebrew; the ethics of Jesus; further development of ethical ideals in the life of the church, modern theories of life.

MR. VEALE

## SOCIOLOGY

\*MR. BREARLEY

MR. BLOOM

MR. CROUCH

SOCIOLOGY 31—ELEMENTARY SOCIOLOGY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* Junior standing.

*Purpose:* To give an introduction to sociology and contemporary social problems. *Principal Topics:* Group behavior, the family, population problems, race relations, dependency, crime. (*Introduction to Sociology*—Young and Kimbrall.)

MR. BREARLEY

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\*On leave.

SOCIOLOGY 33—INTERNATIONAL RELATIONS—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Juniors and Seniors.

*Purpose:* To acquaint the student with current world movements and conditions, so that he may be able to think intelligently on the problems confronting our own nation. *Principal Topics:* Economics, political and racial problems. (*The Great Powers in World Politics*—Simonds and Emeny.)

MR. CROUCH

SOCIOLOGY 41—CRIMINOLOGY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31.

*Purpose:* To introduce the student to the principal problems of crime and its treatment. *Principal Topics:* The nature and sources of crime, the administration of criminal justice, systems of penology. (*The Problem of Crime*—Ettinger.)

MR. BREARLEY

SOCIOLOGY 42—THE FAMILY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

*Purpose:* To assist the student in developing perspective concerning the problems of marriage and family life. *Principal Topics:* History of the family, social problems of the family, conservation of the family, sources of failure and success in marriage. (*The American Family*—Groves.)

MR. BREARLEY

SOCIOLOGY 44—ADVANCED SOCIOLOGY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

The purpose and topic of this course will be adjusted to the interests of the class and will vary from year to year.

MR. BREARLEY

MR. BLOOM



SOCIOLOGY 46—PRIMITIVE SOCIETY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

An introductory survey of primitive societies with special attention to the Indians of North America. (*Our Primitive Contemporaries*—Murdock.)

MR. BLOOM

### TEXTILE CHEMISTRY AND DYEING

MR. LINDSAY

MR. HUCKABEE

MR. HICKS

T. C. 31 and 32—TEXTILE CHEMISTRY—Semesters 1 and 2 (2 and 2)  
2 2/3 cr.

*Prerequisite:* Chemistry 12.

*Purpose:* This course is designed to give the student the general knowledge of the subject that is essential to the management of any modern textile plant. *Principal Topics:* A general introduction into the theory of textile chemistry. Particular attention is given to the textile fibers, dyestuffs, and organic compounds used in the textile and related industries. (*Introduction to Organic Chemistry*—Lowy and Harrow; *T. C. Mimeograph Notes*.)

MR. HUCKABEE

MR. HICKS

T. C. 33 and 34—TECHNICAL WRITING—Semesters 1 and 2 (1 and 0)  
1 cr.

*Purpose:* A course designed to familiarize the student with the technical literature. *Principal Topics:* Patents, particularly in the field of chemistry as applied to textiles, dyes, dyeing, finishing, rayon, and related subjects; literature searches; abstracting of technical literature and patents; report writing; technical nomenclature, etc.

MR. LINDSAY

T. C. 35 and 38—TEXTILE CHEMISTRY—Semesters 1 and 2 (4 and 3)  
5 cr.

*Prerequisite:* Chemistry 12, 23 and 24.

*Purpose:* This course is designed particularly for textile chemists in that it covers the theories of formation and chemical behavior of the products used in bleaching, dyeing, and finishing. *Principal Topics:* A sys-

tematic and thorough course emphasizing especially the more complex compounds used in the textile industry such as carbohydrates (cellulose and starches); proteins (silk and wool); azo; anthraquinone and other similar compounds (dyestuffs); enzymes and ferments (desizing products).

MR. HUCKABEE

T. C. 39 and 40—DYEING—Semesters 1 and 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Purpose:* A laboratory course in dyeing with occasional lectures, intended primarily for students specializing in Weaving and Design or Yarn Manufacture. *Principal Topics:* The methods of bleaching and dyeing the different types of fibers are taught through laboratory experiments. Color-matching and evaluation of dyestuffs are considered briefly. (T. C. *Mimeograph Notes.*)

MR. LINDSAY

T. C. 41 and 42—TEXTILE CHEMISTRY AND DYEING—Semesters 1 and 2 (2 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Textile Chemistry 32, 38.

*Purpose:* This course is designed to give Textile Engineers a general knowledge of the subject. *Principal Topics:* A general study of the chemistry of the textile fibers, dyestuffs and their application, detergents and scouring, bleaching, sizing preparation and its application, desizing, mercerizing, finishing, etc. While covering all of the fibers, particular attention is given to cotton. (*Dyeing with Coal Tar Dyestuffs*—Whittaker; T. C. *Mimeograph Notes.*)

MR. LINDSAY

MR. HICKS

T. C. 41.5 and 42.5—TEXTILE CHEMISTRY AND DYEING—Semesters 1 and 2 (4 and 4)  $5\frac{1}{3}$  cr.

*Prerequisite:* Textile Chemistry 38 or Chemistry 36.

*Purpose:* An advanced course in the subject for those desiring to become textile chemists or dyers. *Principal Topics:* This course comprises a full and complete study of the textile fibers, the action of the various reagents upon them, and the various processes through which they pass in the different stages of textile manufacture. Application of dyes to the different classes of textile fibers is fully covered in the laboratory by the usual dyepot experiments, and also by larger scale dyeings. (*Dyeing with Coal Tar Dyestuffs*—Whittaker; *The Application of Dyestuffs*—Matthews; T. C. *Mimeograph Notes.*)

MR. LINDSAY

T. C. 43—CELLULOSE CHEMISTRY—Semester I (2 and 0) 2 cr.

*Prerequisite:* Textile Chemistry 35.

*Purpose:* To give the student a thorough knowledge of the latest theories regarding the constitution of our most common and important textile fiber. *Principal Topics:* A study of the chemistry of cellulose based upon the latest research. The various cellulose derivatives are included. (*Chemistry of Cellulose and Wood*—Schorger.)

MR. LINDSAY

T. C. 45 and 46—ANALYSIS OF TEXTILE MATERIALS—Semesters I and 2 (1 and 3) 2 cr.

*Prerequisite:* Chemistry 24 and Textile Chemistry 38.

*Purpose:* To prepare the student to make analyses pertaining to the materials used in the textile and related industries. *Principal Topics:* The technical analysis of the various chemicals and materials used in the textile industry, including yarns and fabrics, water, soap, sizes, finishes, oils, etc., and hydrogen ion determinations by the colorimetric and potentiometric methods (*Technical Methods of Analysis*—Griffin.)

MR. HUCKABEE      MR. HICKS

T. C. 47 or 46.5—MICROSCOPY OF TEXTILE MATERIALS AND CHEMICALS—Semester I or 2 (1 and 1) 1 1/3 cr.

*Purpose:* This course is especially planned to enable the student to utilize this valuable means of investigation in the textile and related industries. *Principal Topics:* The preparation of the various materials used in the textile industry for microscopic examination, photo-micrography, micrometry, etc. (*Textiles and the Microscope*—Schwarz; *T. C. Mimeograph Notes*.)

MR. HUCKABEE

T. C. 48—SYNTHETIC FIBER CHEMISTRY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Cellulose Chemistry.

*Purpose:* To equip the student with the knowledge essential to the undertaking of the work in the synthetic fiber industry. *Principal Topics:* A study of the chemistry and mechanics involved in the manufacture of

the various synthetic fibers; the chemical, physical and textile properties of the various products, etc. (*Artificial Silk*—Reinthal and Rowe; *T. C. Mimeograph Notes*.)

MR. LINDSAY

T. C. 50 and 51—THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To determine the ability of the student to initiate and satisfactorily complete an advanced problem generally related to some work he wishes to pursue after graduation. *Principal Topics:* An investigation of an assigned problem relating to textile chemistry, dyes or dyeing, including the preparation of a written report of this work. When the student has already decided upon some work which he will follow after graduation, an effort is made to assign the investigation to this or a closely related subject.

MR. LINDSAY

*Division Rooms and Equipment.*—All work in textile chemistry and dyeing is conducted in the class room laboratory and dye-house, both especially provided for this purpose.

Besides the usual dyeing laboratory equipment, the dye house contains a hydroextractor, Franklin process and Columbus package dyeing machines (one of which is also suitable for bleaching purposes), a Hussong skein dyeing machine, a jigger, a printing machine, a Permutit water softening system, fadeometer, spectroscope, potentiometric and colorimetric hydrogen ion concentration determination equipment, special rubber-lined rayon dyeing equipment, spray printing equipment, launder-o-meter, Rodney Hunt kier; Rodney Hunt piece goods dyeing machine; monel metal tanks; Strickland monel metal hosiery dyeing machine; Philadelphia Metal Drying Forms for hosiery, etc.

## VETERINARY SCIENCE

MR. FEELEY

VET. SCI. 41—ANATOMY AND PHYSIOLOGY—Semester 1 (2 and 2)  
2 2/3 cr.

*Purpose:* To give agricultural students a general knowledge of anatomy and physiology of farm animals. *Principal Topics:* Physiology of digestion, chemical and physical processes of digestion and absorption, common diseases, farm sanitation, and first aid treatment. (*Veterinary Science*—Hadley.)

MR. FEELEY

VET. SC. 42—DISEASES OF ANIMALS—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give agricultural students instruction in the recognition, causes, and treatment of the diseases of farm animals. *Principal Topics:* The principles of etiology, pathology, diagnosis, symptoms, and treatment of infectious and non-infectious diseases.

MR. FEELEY

### VOCATIONAL EDUCATION

MR. WASHINGTON

|              |               |             |              |
|--------------|---------------|-------------|--------------|
| MR. CRANDALL | MR. MONROE    | MR. BOWEN   | MR. BOOKER   |
| MR. TATE     | MR. STRIBLING | MR. JOHNSON | MR. BROCK    |
| MR. WHITE    | *MR. AYERS    | MR. KIRKLEY | MR. KIRCHNER |
|              | MR. ALEXANDER |             |              |

VOC. ED. 11—ORIENTATION—Semester 1 (1 and 0) 1 cr.

*Purpose:* To aid the freshman in adjusting himself to the College environment and his course of study.

MR. WASHINGTON    MR. CRANDALL    MR. BOOKER    MR. TATE

VOC. ED. 21—INTRODUCTION TO EDUCATION—Semester 1 (2 and 0) 2 cr.

*Purpose:* To develop a broad concept of education and a comprehensive view of the scope and opportunities in teaching, to set up desirable objectives for education and to develop a desire for professional growth. *Principal Topics:* Scope, meaning, and significance of education, more significant aspects of teaching, teaching and learning principles, efficient study procedure, professional education's contributions to the successful work of the teacher, teacher personality traits, individual differences and teaching, outcomes of education, status of teaching profession, major problems of education.

MR. BROCK

VOC. ED. 22—INTRODUCTION TO VOCATIONAL EDUCATION—Semester 2 (1 and 0) 1 cr.

*Purpose:* To introduce the student to the field of education as a whole and to develop a background for further educational training. *Principal Topics:* The place of vocational education in the educational system, the subject-matter fields related to the vocation for which the student is planning to become a teacher, the place of the teacher in the community.

MR. CRANDALL    MR. BROCK

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\*On leave.



VOC. ED. 28—OBSERVATION OF INDUSTRIAL TEACHING—Semester 2 (0 and 3) 1 cr.

*Purpose:* To give the student a practical acquaintance with the duties of the industrial arts teacher.

MR. TATE      MR. BROCK

VOC. ED. 31—INTRODUCTION TO AGRICULTURAL EDUCATION—Semester 1 (1 and 6) 3 cr.

*Purpose:* To familiarize students with the work of teachers of agriculture in local communities. *Principal Topics:* Students observe and report on the work of all-day, part-time, evening and day unit classes, community and promotional work, equipment and general organization of a program in agricultural education for a local community. Each trainee develops several units of teaching content and instructs classes in vocational agriculture. Students spend two afternoons each week in the practice department.

MR. CRANDALL   MR. MONROE   MR. STRIBLING   MR. JOHNSON   MR. BOWEN

VOC. ED. 31.6, 32.6—SPECIAL METHODS IN INDUSTRIAL ARTS—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student fundamental skills, knowledges, and shop content in woodwork, to give the special technique and method of approach in teaching shop subjects in high schools. *Principal Topics:* Project construction, finishing, construction, and care of shop tools and equipment, materials, characteristics of woods, fasteners, finishing materials, glues, the shop budget. These topics are taken up from the standpoint of the most progressive methods of shop teaching in industrial arts.

MR. MARSHALL

VOC. ED. 32—ORGANIZATION OF COURSES OF STUDY—Semester 2 (3 and 0) 3 cr.

*Purpose:* To have students build industrial courses based upon specific analyses of the jobs to be taught, and to have students use these courses in teaching. *Principal Topics:* Purpose, scope, and use of job analyses in writing courses of study, writing and using instruction sheets for teaching, constructing achievement tests in industrial subjects. The student is required to select some industrial subject and write a course of study based upon analyses of jobs covered under that subject. Prospective teachers are urged to select subjects which they expect to teach later.

MR. BROCK

\*Voc. Ed. 33—FUNDAMENTALS OF PHYSICAL EDUCATION—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give the student a knowledge of the basic principles underlying the promotion of an adequate program of physical education. *Principal Topics:* The place of physical education in the curriculum of the modern school. The relation of physical education to the scheme of general education. The part that anatomy, physiology, hygiene, sociology, psychology and like sciences have to do with a successful physical education program. Methods of motivating physical education are stressed.

MR. KIRCHNER

Voc. Ed. 34—PROBLEMS IN AGRICULTURAL EDUCATION—Semester 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with the history and development of vocational agricultural education and to develop a sound philosophy toward vocational agricultural education in the public school system. *Principal Topics:* Federal and State Acts providing for vocational education, functions of various professional organizations, functions of the state and national organizations for agricultural students, the need of vocational agriculture in the rural high schools, relation of vocational agriculture department to other departments in high schools, current thought on the part of leading educators for meeting the needs of rural people, and experimental results in education.

MR. STRIBLING

Voc. Ed. 33.5, 34.5—ART METAL WORK—Semesters 1 and 2, 1—3 cr.

*Purpose:* This course is primarily for industrial education students and others who plan to teach art-metal courses in public schools and who would like to become acquainted with the making of plates, letter openers, trays, bowls, and metal-working tools. To study methods of teaching and methods of introducing art-metal work in the public schools. *Principal Topics:* The obtaining of tools and materials, organizing the class, methods of teaching, making wooden mallets, forming blocks, actual making of objects, teaching art metal work to selected students.

MR. BROCK

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\*Voc. Ed. 33, 49.5, 58, and 64 are courses in Physical Education; other courses may also be offered in this field.

VOC. ED. 35—PSYCHOLOGY FOR TEACHERS—Semester 1 (2 and 2) 3 cr.

(See Psychology 35.)

*Purpose:* To acquaint students of education and others with some fundamental characteristics of human behavior. *Principal Topics:* Physiological bases of behavior, mental growth, the emotions and their expression, the learning process, individual differences and their measurement, personality, problem children, abnormal behavior. (*Psychology for Students of Education*—Gates; *Personality, Its Development and Hygiene*—Richmond.)

MR. BREARLEY

VOC. ED. 37—RURAL AND VILLAGE SCHOOL PROBLEMS—Semester 1 (3 and 0) 3 cr.

*Purpose:* To introduce the student to the problems facing a teacher in rural and small town schools, and from this to determine the qualifications necessary for a successful teacher. *Principal Topics:* Correlation of the curriculum with the desirable social trends in agricultural and industrial communities, the summer session, transportation problems, special qualifications of teachers.

MR. MONROE

VOC. ED. 38—TEACHING OF DRAWING—Semester 2 (2 and 2) 3 cr.

*Prerequisite:* Drawing 14 (or equivalent).

*Purpose:* To train for the teaching of drawing and the understanding of some of the elements of the subject. *Principal Topics:* Psychology as applied to the subject, planning the layout of suitable course to meet group needs, some of the arts and sciences used in drawing, fitness of teacher and student in class work, vocational direction in this field, methods, reading of drawings, grades, and grade methods. (Reference texts used as assigned.)

MR. KLUGH

VOC. ED. 39—PRINCIPLES OF SECONDARY EDUCATION—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give prospective teachers the results of experience, research, and thinking in education which form the basis of sound practice in teaching high school subjects. *Principal Topics:* Characteristics and

need of education, characteristics of learning, knowledge and thinking ability, motor, moral, and appreciative reactions, choice of subjects and activities, influence of age, maturity, and individual differences, methods of teaching, appraising results of education.

MR. TATE

VOC. ED. 40—PRACTICE TEACHING IN AGRICULTURE—Semester 2 (0 and 15) 5 cr.

*Purpose:* To give the students an opportunity to discharge the duties and responsibilities of an agricultural teacher in a local community. *Principal Topics:* Students participate in all-day, part-time, evening-class, and day-unit work. Habits, attitudes, ability to assume responsibility, promptness, general reliability, and degree of skill developed are some of the factors considered in rating the student as a prospective teacher. Students spend five afternoons a week in the practice schools.

MR. CRANDALL MR. MONROE MR. STRIBLING MR. JOHNSON MR. BOWEN

VOC. ED. 41—PRINCIPLES OF VOCATIONAL EDUCATION—Semester 1 (1 and 9) 4 cr.

*Purpose:* To instruct students in principles and methods in connection with practice teaching. *Principal Topics:* Emphasis is placed on the participation of students in all possible phases of the work of a teacher of agriculture in a local community. Students organize and teach all-day, part-time, evening, and day-unit classes. Students are held responsible for definite phases of community and promotional work.

MR. CRANDALL MR. WHITE MR. MONROE MR. STRIBLING MR. BOWEN

VOC. ED. 42—METHODS IN AGRICULTURAL EDUCATION—Semester 2 (3 and 0) 3 cr.

*Purpose:* Problems and difficulties that arise in practice teaching receive special emphasis in this course. *Principal Topics:* A thorough survey is made of teaching content for all-day, part-time and evening-class students. Students make careful analyses of conditions and practices of farming in a local community as a source of teaching content. Other sources of teaching content which receive emphasis in this course are data from experiment stations and the United States Department of Agriculture.

MR. CRANDALL



VOC. ED. 43 and 44—PRACTICE TEACHING IN INDUSTRIAL SUBJECTS—Semesters 1 and 2 (0 and 10) 5 cr.

*Purpose:* To develop through supervised practice-teaching those techniques, attitudes, and principles universally valuable in teaching, to give prospective teachers experience in handling problems in the school. *Principal Topics:* Organizing class, selection of teaching materials, planning work, discipline, teaching methods, examinations and grading, co-operation with school personnel, records and reports, inventories, and upkeep of equipment. Each student teacher periodically is given an opportunity to teach some industrial subject. During his teaching period he is responsible for his class just as if he were an employed teacher of that subject.

MR. TATE      MR. BROCK

VOC. ED. 45—TEACHING SCIENCE—Semester 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with the objectives and methods of science instruction in public schools. *Principal Topics:* Project method of teaching science, aims and values of science instruction, teaching content, classroom procedure, and relationship of science instruction to the general and vocational courses and to administrative procedures.

VOC. ED. 46—TECHNIQUE OF TEACHING—Semester 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the prospective teacher with the most significant problems in industrial teaching, to propose solutions for those problems consistent with most authoritative information available. *Principal Topics:* Shop planning, organizing classes, selection of equipment and tools, ways of securing materials and supplies for school shop, introducing a shop program, financing a shop program, advertising a shop program, methods of teaching, and discipline.

MR. TATE

VOC. ED. 47—HISTORY AND PHILOSOPHY OF EDUCATION—Semester 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the historical development of education and to develop an appreciation for the contributions of the various leaders in education. *Principal Topics:* Education in the Orient, early European education, the contributions of Plato, Luther, Locke, Rousseau, Spencer, Herbart, Dewey, and others. The development of public education in South Carolina, special attention given to the social significance of the school.

MR. WASHINGTON



VOC. ED. 48—TEACHING OF PHYSICS AND MATHEMATICS—Semester 2 (3 and 0) 3 cr.

*Purpose:* To train the prospective teacher in course-building and the methods of teaching as applied especially to mathematics and physics. *Principal Topics:* The purpose of physics and mathematics in the high school course, project planning, lesson planning, analysis of adopted textbooks, supplementary teaching materials and equipment, conduct of the recitation, grading, class management, and discipline.

VOC. ED. 49.5—LEADERSHIP IN COMMUNITY RECREATION—Semester 1 or 2 (2 and 3) 3 cr.

*Purpose:* To train leaders in the recreation field. *Principal Topics:* The aims, objectives and philosophy of the recreation movement. Historical background. Planning programs to meet community needs in the rapidly expanding leisure. A survey of organizations dealing with recreational problems. Students are given the opportunity to get practical experience in leadership by conducting social recreation activities and game programs in adjacent communities.

MR. KIRCHNER

VOC. ED. 50—PROBLEMS IN ADVANCED WOODWORK FOR TEACHERS—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

MR. MARSHALL

VOC. ED. 51—PRACTICE TEACHING IN HIGH SCHOOL SUBJECTS—Semesters 1 and 2 (0 and 6) 3 cr.

*Purpose:* To give supervised practice in teaching general science, chemistry, mathematics, civics, etc., in order to develop skill in the best methods of teaching these subjects. (Enrollment is by individual approval.) *Principal Topics:* Selection of subject matter, planning work, methods of teaching, examinations, grading, discipline, cooperation with school personnel, records, and reports. When possible the student teacher is allowed to teach his subject of greatest interest. During his teaching period he is under close supervision and is held fully responsible for his class.

MR. TATE

VOC. ED. 53—PRACTICE TEACHING IN EVENING CLASSES—Semesters 1 and 2 (0 and 2) 1 cr.

*Purpose:* To give the prospective industrial teacher practice in organizing trade and industrial evening-classes, organization of suitable instructional material and the actual teaching of such classes. *Principal Topics:* Organization of classes, selection of teaching material, planning work, cooperation with industry, reports and records, and follow-up.

MR. TATE      MR. BROCK

VOC. ED. 55—COORDINATION METHODS IN VOCATIONAL EDUCATION—Semester 1 (1 and 3) 2 cr.

*Purpose:* To give prospective coordinators of Diversified Occupations programs and other types of part-time education the method of coordinating such programs. *Principal Topics:* Cooperative Vocational Education, duties and responsibilities of coordinators, supervision, schedule making, teaching related subject matter, records and reports. The Smith-Hughes and George-Dean Vocation Acts, as they concern Cooperative Vocational Education.

MR. BOOKER

VOC. ED. 56—EDUCATIONAL AND VOCATIONAL GUIDANCE—Semester 2 (3 and 0) 3 cr.

*Purpose:* Study of meaning, purpose, and aim of guidance, methods of investigation in guidance, methods of guiding students, results of guidance. Each student will prepare a program of guidance suitable for a typical school system. *Principal Topics:* Need, meaning, basic assumptions, aims, and objectives of guidance; general methods of investigation; use of school records, exploratory activities, tests, estimates of personality traits, and self-analysis as methods of studying the individual; methods of securing and assembling facts about courses of study in educational instruction; methods of study of occupations; guidance of students in choice of occupation; choice of training, and organization of guidance.

MR. TATE

VOC. ED. 58—HIGH SCHOOL COACHING—Semester 2 (2 and 0) 2 cr.

*Purpose:* To train prospective high school coaches in the fundamentals of developing individuals and teams. *Principal Topics:* Emphasis is given to educational value of clean sports and particular attention is given to the physical condition of the student body, conditioning and

training for competitive participation in football, basketball, and baseball. Field laboratory work may be required in addition to the class work.

MR. NEELY

VOC. ED. 59—ADMINISTRATION OF VOCATIONAL AND OTHER SCHOOLS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To acquaint the prospective teacher with modern administration technique in public education. *Principal Topics:* The public school curriculum, the administration of vocational departments, the duties of the principal and his relationship to the school board, etc. Attention will also be given to certain legal phases of school administration.

MR. WASHINGTON

MR. FULMER

VOC. ED. 61 AND 62—INDUSTRIAL LABORATORY—Semesters 1 and 2 (0 and 6) 2 cr.

*Purpose:* To develop an industrial background for the teacher who is to have charge of a comprehensive industrial program in a community where an effort is being made to train young men and adult industrial workers in the individual skills of productive employment in industrial occupations. This will include woodworking, painting, metalworking, drafting, etc., and also the interplay of skills between these as adapted to teaching situations. *Principal Topics:* Planning, investigating, and determining the requirements in the way of materials, time and equipment, and executing the plans of such industrial projects as (1) forms, objects and structures in concrete, (2) economic utilization of various woods and lumber, (3) construction of objects of economic usefulness in metal, (4) skills in pipefitting and plumbing, (5) determining the economy of various electrical appliances, (6) economical repair of electrical appliances, etc. The student will be required to select his projects, furnish materials, make preliminary plans and sketches for them, and have these approved by the instructor. At the completion of each project in the laboratory the student will be carefully examined concerning the work he has done.

MR. TATE

MR. BROCK

VOC. ED. 64—SPORTS ORGANIZATION AND PROMOTION—Semester 2 (2 and 3) 3 cr.

*Purpose:* To aid the student in organizing and promoting wholesome sports appropriate for schools and colleges. *Principal Topics:* The content of a comprehensive sports program; sports as educational ac-

tivities; the value of sports from the avocational angle in the present social order; the intramural program, the interscholastic program, and the playground program. Special attention is given to developing organizations that promote appropriate recreation for all, rather than the few.

MR. KIRCHNER

Voc. Ed. 100—SPECIAL PROBLEMS IN EDUCATION—Semesters 1 and 2  
1-5 cr. (enrollment by individual permission.)

*Purpose:* To provide an opportunity for persons needing special assistance in meeting emergency or unusual situations in educational work.

Students who enter this course are required to provide their own transportation in connection with field work.

### WEAVING AND DESIGNING

MR. McKENNA

MR. CARTEE

MR. TARRANT

MR. GAGE

MR. WALTERS

W. D. 12—TEXTILES—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

*Purpose:* To give the student a general background for the work which follows, and enable him to see the industry as a whole. *Principal Topics:* Elementary studies of weaving, designing, warping, and slashing. (*Beam Warpers, Slashers, Northrup looms—International Textbook Company; W. D. Mimeograph Notes.*)

MR. GAGE

MR. WALTERS

W. D. 21—ELEMENTARY DESIGN—Semester 1 (2 and 0) 2 cr.

*Suggested Preliminary Course:* W. D. 12.

*Purpose:* To give thorough instruction in the construction of the fundamental weaves and their derivatives. *Principal Topics:* Plain, twill, and sateen weaves, derivatives, harness and chain drafts, principles of color harmony. (*Design Textbooks—International Textbook Company; W. D. Mimeograph Notes.*)

MR. TARRANT

W. D. 22—ADVANCED DESIGN—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 21.

*Purpose:* To instruct the student in constructing weaves for the more intricately woven fabrics. *Principal Topics:* Extra warp and filling for weight and figure, double cloths, velvets, plushes, corduroys, and turkish toweling. (*Design Textbooks*—International Textbook Company; *W. D. Mimeograph Notes*.)

MR. MCKENNA

MR. TARRANT

W. D. 23—WEAVING—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To give the student thorough training in the operation, construction, and adjustment of loom mechanisms. *Principal Topics:* Analytical study of the loom, the shedding motion, design of shedding cams, the picking motion, the beating-up and the take-up motions; take-up calculations, let-off mechanisms, the filling stop motion, batteries, automatic loom adjustment, and practical loom fixing. (*W. D. Mimeograph Notes*.)

MR. GAGE

MR. WALTERS

W. D. 24—WEAVING—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* W. D. 23.

*Purpose:* To give the student instruction in fabric production on the more advanced types of looms with special cams and attachments. *Principal Topics:* Mechanical and electrical warp stop motions, filling feelers, thread cutters, shuttle change mechanisms, selvage and side cam motions, loom fixing. (*W. D. Mimeograph Notes*.)

MR. GAGE

MR. TARRANT

\*W. D. 25—WEAVE ROOM PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To apply the fundamental principles of mathematics to weave room problems. *Principal Topics:* Mechanical calculations of the

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\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Textile Engineering and Weaving and Designing courses.



loom, the theoretical and practical production of the loom, yarn, beam, and fabric calculations, loom equipment and slasher problems. (*Weave Room Calculations*—Clark; *W. D. Mimeograph Notes*.)

MR. DAY

W. D. 26—WEAVE ROOM PROBLEMS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To apply the fundamental principles of mathematics to weave room problems. *Principal Topics:* Mechanical calculations of the loom, the theoretical and practical production of the loom, yarn, beam, and fabric calculations, loom equipment and slasher problems. (*Weave Room Calculations*—Clark; *Cotton Mill Calculations*—Smith and Quigley; *W. D. Mimeograph Notes*.)

MR. TARRANT

MR. GAGE

W. D. 31—DOBBY DESIGN—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* W. D. 21.

*Purpose:* To give instruction in the derivation of the specifications and drafts necessary for the productions of fabrics on the dobby loom. *Principal Topics:* Ratio of intersections; methods of combining weaves; laying out weaves for figures, stripes, and checks, dressing and beaming plans; harness, reed, and chain plans. (*W. D. Mimeograph Notes*.)

W. D. 32—ADVANCED DOBBY DESIGN—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 31.

*Purpose:* To give the student training in designing the more advanced types of dobby-woven fabrics. *Principal Topics:* Weaving specifications for handkerchiefs, clip-spot fabrics, double cloths, and composition of original dobby patterns. (*W. D. Mimeograph Notes*.)

MR. McKENNA

MR. TARRANT

W. D. 33, 34—FABRIC ANALYSIS—Semester 1 (0 and 2) 1 cr. Semester 2 (0 and 2) 1 cr.

*Prerequisite:* W. D. 12, (W. D. 21 and 22 suggested.)

*Purpose:* To give the student a thorough knowledge of the analysis of fabrics as they come to the mill for reproduction. *Principal Topics:* Methods of determining yards per pound from a small sample of yarn

counts; overall and ground construction; selection of yarn counts; determining the design, drawing-in-draft, chain draft, and reed plan; warp dressing plan; cotton, wool, silk, and rayon fabric. (*W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 35—FANCY LOOM FIXING—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give the student an understanding of the principles of operation, timing, and settings of the dobby and drop box looms. *Principal Topics:* A study of harness settings for various types of patterns; setting and timing of cylinder, knives, crankshaft, box motion, hooks, and chains; building box, pattern, and multiplier chains; weaving fabrics from original chains. (*Dobbies, Box Motions, Dobby and Dobby Multipliers; W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 36—FANCY LOOM FIXING—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* W. D. 23 and 24 (W. D. 35, suggested).

*Purpose:* To give practical instruction in the timing and setting of special motions used on dobby and box looms. *Principal Topics:* Double cylinder dobbies, rocking cylinder, two weave and center filling stop motion; automatic stationary magazines; four chain multipliers, warp striper, and feeler motion. (*Crompton and Knowles Bulletins; W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 37—RAYON PROCESSING—Semester 1 (1 and 2) 1 2/3 cr.

*Prerequisite:* Open to juniors and seniors in the Textile School.

*Purpose:* To instruct the student in the processes of rayon warp preparation and in the weaving of rayon fabrics. *Principal Topics:* Rayon yarns classified according to the processes used in their manufacture; physical properties of the rayons and their relation to processing; winding, warp, and slashing; sizing materials and formulae; rayon weaving. (*Rayon and Synthetic Yarn Handbook—Schwarz.*)

MR. McKENNA

W. D. 41—JACQUARD WEAVING—Semester 1 (1 and 2) 1 2/3 cr.

*Purpose:* To give instruction in the operation and mechanism of the Jacquard machine and complementary equipment. *Principal Topics:* Types of Jacquard machines, types and methods of harness building, de-

signs for different tie-ups, card cutting and lacing, Jacquard machine fixing. (*Jacquards, International Textile Book Company, W. D. Mimeograph Notes.*)

MR. McKENNA

W. D. 42—JACQUARD DESIGN—Semester 2 (1 and 4) 2 1/3 cr.

*Purpose:* To give instruction in the design of fabrics of artistic value for decorative purposes. *Principal Topics:* Application of the principles of decorative design; derivation of original designs by the use of color, weave, and form; pattern enlargement; card cutting and lacing; sample weaving. (*W. D. Mimeograph Notes.*)

MR. McKENNA

W. D. 43—COST FINDING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Open to juniors and seniors in the Textile School.

*Purpose:* To teach the fundamentals of cost finding procedure and the control of manufacturing costs. *Principal Topics:* Standard costs, cost control, valuing the inventory, material costs, labor budgets, distribution of fixed charges, departmental processing costs, determining the costs of individual yarns and fabrics, cost reports. (*Computing Cotton Fabric Costs—Hill; W. D. Mimeograph Notes.*)

MR. CAMPBELL

W. D. 44—LENO DESIGN AND WARP PREPARATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 31, 33, and 34.

*Purpose:* To give the student thorough instruction in the practice of warp preparation and in the structure of cross-woven fabrics and the methods employed in their design and production. *Principal Topics:* Mechanism for leno weaving, simple leno fabrics, fancy leno on one set of doup, the slotted doup, three-end leno; full turn leno, advanced fabric styling, starches; sizes, slashing methods, warping machinery. (*Fundamentals of Leno Weaving—Shinn and McKenna; W. D. Mimeograph Notes.*)

MR. McKENNA

W. D. 45, 46—PATTERN WEAVING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Purpose:* To coordinate the principles taught in the fundamental courses of the Weaving and Designing Department. *Principal Topics:*

The student will be required to design and produce to specifications one fancy cloth each semester and submit reports covering the design and analysis. (*W. D. Mimeograph Notes.*)

MR. MCKENNA

W. D. 45.5, 46.5—ADVANCED PATTERN WEAVING—Semesters 1 and 2 (0 and 6) 2 cr.

*Prerequisite:* W. D. 31, 32, 33, and 34.

*Purpose:* This course is arranged especially for students in textile design with the objective of giving the student more time to apply the principles of design in the production of fancy fabrics. *Principal Topics:* The student will be required to produce two decorative fabrics of a complex nature each semester and submit reports covering their specifications, design, analysis, and manufacturing cost.

MR. MCKENNA

W. D. 47—INDUSTRIAL MANAGEMENT—Semester 1 (2 and 0) 2 cr.

*Purpose:* To give the student an insight into the principles of factory organization and administration. *Principal Topics:* The design and construction of factory buildings, selecting equipment, plant layout, material handling, lighting, time and motion study, wage payment plans, manufacturing costs. (*Industrial Engineering and Management—Barnes.*)

MR. MCKENNA

W. D. 47.5—PERSONNEL MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the personnel problems of the textile mills and the methods employed in the management of labor. *Principal Topics:* Employee development, industrial historical background, selection and placement, compensation, job analysis and specifications, joint relations, personnel records, industrial sanitation and health, safety, industrial codes. (*Applied Personnel Administration—Walters.*)

MR. MCKENNA

W. D. 48—KNITTING—Semester 2 (0 and 2) 2/3 cr.

Open to juniors and seniors in the Textile School.

*Purpose:* To familiarize the student with the principles of knitted fabric construction and hosiery production. *Principal Topics:* Knitting mechanisms, construction of knitted fabrics and hosiery, rib knitting,

hosiery machinery, fancy knitting, sinker-reverse plating, the float and the welt stitch principle, hosiery analysis, material costs, labor costs, overhead costs, knitting calculations. (*W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 50—THESIS—Semester 2 (0 and 2) 1 cr.

*Purpose:* To introduce the student to the experimental method of solving problems. *Principal Topics:* Individual problems requiring original investigation will be assigned in some phase of textile manufacture. The thesis will consist of a report on the results obtained through research or experiment.

MR. CARTEE      MR. McKENNA

#### ROOMS AND EQUIPMENT OF THE WEAVING AND DESIGNING DEPARTMENT

The class rooms and laboratories of the Weaving and Designing Department are equipped for instruction in the manufacture of a wide variety of woven and knitted products. The weaving laboratories contain forty looms, representing practically all types of plain, gingham, dobby, and Jacquard looms in use in the southern cotton mills with additional equipment for winding, warping, slashing, and card stamping.

The knitting division is equipped with the leading types of latch needle hosiery machinery for the production of ladies' and men's plain and fancy hosiery. Modern lighting and humidifying systems have been installed in all laboratories and class rooms.

#### YARN MANUFACTURING

MR. EATON

MR. DUNLAP

MR. BLAIR

MR. DAY

MR. CAMPBELL

Y. M. 11—THE TEXTILE INDUSTRY—Semester 1 or 2 (1 and 2) 1 2/3 cr.

*Purpose:* To introduce textile students to the industry through study and discussions on factory organization, the use of cleaning and spinning machines, nomenclature. *Principal Topics:* Brief history of the industry, relation of owners and management, economic importance of textiles. The laboratory is used to demonstrate each machine used in yarn manufacturing. Calculations of machine speeds, drafts, and waste explain the action of each machine and its parts and yarn numbering. (*Y. M. Mimeograph Notes.*)

MR. HICKS

MR. CAMPBELL

MR. DAY



## Y. M. 21—PICKERS—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student thorough knowledge of cotton opening, cleaning, and lap forming equipment. *Principal Topics:* Bale breakers, automatic feeders, lappers, cleaning trunks, beaters, eveners motions, and measuring devices, calculations for drafts, production, waste, and speeds. (*Cotton Yarn Manufacture*—Winchester; *Y. M. Mimeograph Notes*.)

MR. BLAIR MR. DAY

## Y. M. 22—CARDS AND DRAWING FRAMES—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student thorough knowledge of revolving top flat cards and drawing frames as used in cotton manufacturing. *Principal Topics:* Settings, grinding, stripping, card clothing, calculations for card speeds, production, waste, and draft, metallic and covered top rolls, roll settings, all calculations and practice in operating both machines. (*Cotton Yarn Manufacture*—Winchester; *Y. M. Mimeograph Notes*.)

MR. GAGE MR. EATON MR. BLAIR

## Y. M. 23—MILL PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To give a thorough foundation in arithmetic as applied to textile manufacturing. *Principal Topics:* Problems in draft, twist, waste percentage, production, and machine organizations. (*Cotton Mill Mathematics*—Quigley and Smith; *Y. M. Mimeograph Notes*.)

MR. CAMPBELL MR. DAY MR. DUNLAP

## \*Y. M. 24—MILL PROBLEMS—Semester 2 (2 and 0) 2 cr.

*Purpose:* To give a thorough foundation in arithmetic as applied to textile manufacturing. *Principal Topics:* Deals with problems in draft, twist, waste percentage, production, and machine organizations. (*Cotton Mill Mathematics*—Quigley and Smith; *Y. M. Mimeograph Notes*.)

MR. DUNLAP MR. DAY

## Y. M. 28—COTTON GRADING—Semester 1 or 2 (0 and 2) 2/3 cr.

*Purpose:* To teach the fundamentals of cotton classing according to U. S. Government Standards for grades and staples. *Principal Topics:*

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\*Y. M. 23 and W. D. 26, or W. D. 25 and Y. M. 24 constitute required textile mathematics in Textile Engineering and Weaving and Designing courses.

Stapling, classing, and valuing all grades of cotton raised in U. S.; methods of ginning, marketing, and handling cotton; contracts and claims. (*Government Bulletins; Cotton Yarn Problems—Smith; Y. M. Mimeograph Notes.*)

MR. GAGE      MR. BLAIR

Y. M. 31—ROVING FRAMES—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give complete information on the construction and operation of fly frames. *Principal Topics:* Drafting, twisting and winding on slubbers, intermediates, and Jack frames; production, rolls, spindles, and flyers, differential motions and cones, twist per inch, sizing roving, all calculations for these topics. (*Cotton Yarn Manufacture—Winchester; Y. M. Mimeograph Notes; Cotton Yarn Problems—Smith.*)

MR. EATON

Y. M. 34—SPINNING, SPOOLING, AND TWISTING—Semester 1 or 2 (2 and 3) 3 cr.

*Suggested Preliminary Course:* Y. M. 31.

*Purpose:* To give thorough knowledge of cotton yarns and their manufacture on ring spinning frames, winding, spooling, and twisting machinery. *Principal Topics:* Machine construction, functions of all parts, calculations for draft, twist, doubling, and constants; wet and dry twisting, rings, and travelers. (*Cotton Yarn Manufacture—Winchester; Cotton Yarn Problems—Smith; Y. M. Mimeograph Notes.*)

MR. DUNLAP

Y. M. 42—COMBERS, SLIVER AND RIBBON LAPPERS—Semester 2 (1 and 2) 1 2/3 cr.

*Purpose:* To study settings and adjustment of the comber and its preparatory machines, and the value and use of its product. *Principal Topics:* Timing and setting comber for various staples and required waste, production and all other calculations, management, and operation of these machines.

MR. BLAIR

Y. M. 43—DOUBLING AND DRAFTING—Semester 1 (1 and 2) 1 2/3 cr.

Y. M. 31 and Y. M. 34 should precede Y. M. 43.

*Purpose:* To study as a manufacturing unit all card room and spinning room equipment. *Principal Topics:* Calculations for draft, pro-

duction, weights, and number of machines required for various counts; labor costs; production of yarn from raw cotton, using all necessary equipment.

MR. DUNLAP

Y. M. 44—MILL ECONOMICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* At least one textile course, preferably W. D. 43.

*Purpose:* To give seniors the principles of economics as applied to general management. *Principal Topics:* Cloth and cotton prices and their relation, calculations for quotations and delivery dates, mill construction, fire and accident insurance, wage and labor conditions. Some of these topics are made the subjects of written reports. (*Y. M. Mimeograph Notes.*)

MR. EATON

Y. M. 48—TEXTILE TESTING—Semester 2 (1 and 2) 1 2/3 cr.

*Purpose:* To instruct the student in testing fiber, yarns, and fabrics. *Principal Topics:* The principal topics include such factors as variety, growing conditions, fiber uniformity, and others influencing the strength and uniformity of yarns. The importance of humidity and its effect upon the working qualities and strength of yarn will be demonstrated. (*A. S. T. M. Specifications and Y. M. Mimeograph Notes.*)

MR. WILLIS

Y. M. 50—THESIS—Semester 1 (0 and 2) 1 cr.

Required of all Textile Engineering Seniors.

*Purpose:* To summarize all information gained from previous Y. M. courses. *Principal Topics:* Using Y. M. Calculations, conducting manufacturing tests, analyzing test data, and preparing written reports.

MR. WILLIS

### *Carding and Spinning Equipment*

The carding and spinning division has one breaker and finisher picker, three cards, four drawing frames, one comber, one sliver lapper and one ribbon lapper, seven fly frames, twelve spinning frames (three of which are long draft), two twistors, two winders, and one spooler.

*Testing Laboratory:* The textile testing laboratory is equipped with American Moistening humidifying and dehumidifying units, automatically controlled. The laboratory is equipped with modern machines for testing fibers, yarns, and fabrics.

### ZOOLOGY\*

MR. SHERMAN

MR. DUNAVAN

MR. WARE

ZOOL. 12—GENERAL ZOOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

*Purpose:* For general science and pre-medical students. To give the student a thorough training in the characteristics, life-histories, and habitats of the principal animal forms. *Principal Topics:* Physiology of living cells, animal environments, cell division, maturation, reproduction, genetics, observation and study of representatives of the principal animal phyla. (*Textbook of General Zoology*—Curtis & Guthrie; *Laboratory Directions in General Zoology*—Curtis & Guthrie.)

MR. WARE

ZOOL. 21—GENERAL ZOOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* For students in agriculture. To familiarize the student with the characteristics, life-histories, and habits of the common types of animals. *Principal Topics:* Physiology of cells, animal environments, cell division, reproduction; observations and study of representative animals; special emphasis on agricultural phases of the subject. (*Textbook of General Zoology*—Curtis & Guthrie; *Laboratory Directions in General Zoology*—Curtis & Guthrie.)

MR. DUNAVAN      MR. WARE

ZOOL. 33—ADVANCED ZOOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To give advanced training in zoological principles and characteristics of animal forms as a basis for later graduate study. *Principal Topics:* Histology, embryology, ecology, distribution, and economic relationships of vertebrate animals, characteristics of all vertebrate groups.

MR. WARE

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\*See also Entomology. Students who major in the Entomology and Zoology Department are required to take several courses in Entomology in addition to those listed under Zoology.

ZOOL. 48—INTRODUCTION TO GAME MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To present the subject of Game Management with special reference to game mammals and game birds. *Principal Topics:* Game mammals, birds and fishes of South Carolina and of the United States with reference to conservation and recreation. (No textbook required. Reference works to be used: *Game Management*—Leopold; *The Bob White Quail*—Stoddard; publications of U. S. Bureau of Biological Survey and Bureau of Fisheries.)

MR. SHERMAN



## PART VI--PUBLIC SERVICE

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### *THE SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION\**

The Agricultural Experiment Station of South Carolina is a department of Clemson College. The experiment station at present consists of the main station, which is located at Clemson, and five sub-stations: one at Summerville, in the coastal plain region; one at Florence, in the Pee Dee section; one at Pontiac, near Columbia, in the sand hill region; one in the trucking section near Charleston; and one in Barnwell county in the melon-growing area. The main offices and laboratories of the station are located on the Clemson College campus, while the station experiment farm, consisting of about 200 acres, is east of and adjoining the college campus. The investigations dealing with the fundamental principles of agricultural sciences and with the application of such principles to practical agricultural operations are carried on in the laboratories and on the experiment station farm at Clemson. The experiments looking to the adaptation of such scientific data accumulated here and elsewhere to the conditions peculiar to certain sections of the State are carried on at the sub-stations and at branch laboratories established in certain sections of the State for this purpose.

It is the aim of the experiment station to conduct research work on problems which have a direct practical bearing on the agriculture of the State. With this end in view extensive experiments relative to the best methods of procedure under various conditions with the principal plants and animals have been undertaken. Economic and social problems are likewise being investigated. As progress is made the results obtained are given out to farmers in the form of bulletins, circulars, and personal letters. Since the establishment of the station, 303 such bulletins and fifty-three circulars have been published, covering practically all phases of agriculture.

Aside from the research work and the publication of results obtained from such research, the experiment station performs

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\*The experiment station staff is given on page 19.

various other duties. Among these might be mentioned the entomological and pathological inspection work (which aims to protect the farms, orchards, and gardens of the State against the introduction of injurious insects and diseases); the biological and soil survey of the State, and the cooperative experimental work carried on with hundreds of farmers in the State. The technically trained experts of the station staff are regarded as authorities in their several specialties, and they are constantly giving out information relating to the various lines of agricultural endeavor. The station staff also aids in disseminating agricultural knowledge by cooperating with the Extension Service of the College in holding agricultural meetings and conferences and by meeting with the farm demonstration agents and giving to them technical information which they in turn carry direct to the farmers.

Close cooperation is maintained with the various research bureaus of the United States Department of Agriculture and with the departments of the College. The laboratories are always open to the inspection of the students and other people of the State. The same is true of the experiment station farm. There is always opportunity for a limited number of students to secure work in the various divisions of the station and to assist in the research work carried on by the members of the station staff.

Home economics research is carried on in cooperation with Winthrop College at Rock Hill. This work is designed to secure additional information on economic, social, and health factors influencing the home and living conditions of rural people.

Close cooperation is maintained between the home economics research department, the teaching and extension workers in this field, and the clubs and societies engaged in the promotion of better rural homes.

A full report of the work and expenditures of the Experiment Station is published annually and this report and all other publications of the station are free and will be sent on request. (Requests for these should be addressed to the Director, Agricultural Experiment Station, Clemson, S. C.)

## FERTILIZER INSPECTION AND ANALYSIS

The work of fertilizer inspection and analysis is under the supervision of the Fertilizer Board of Control consisting of a Committee of the Board of Trustees. The work of inspection and analysis is a department of the Agricultural Experiment Station. District Inspectors are located in different parts of the State. Their duties are to collect official fertilizer samples for analysis and check on the tagging and labelling of all fertilizer material.

The chemical work consists of the analysis of commercial fertilizers as provided for by the Fertilizer Law of the State. This Department also undertakes the analysis of waters, ores, minerals, and other naturally occurring materials, portions of human bodies in cases of suspected poisoning (as provided for by law), and the analysis of home-mixed fertilizers. All the work of this Department is done without charge.

## THE AGRICULTURAL EXTENSION SERVICE\*

The agricultural extension work of the College is carried on by the Extension Service in cooperation with the United States Department of Agriculture. The work is supported by Federal appropriations and in part by State and County appropriations. The main development of extension work has come since the enactment of the Smith-Lever Act in 1914. The purpose of extension work is to diffuse among farm people useful and practical information on subjects related to agriculture and the farm home, and to stimulate the application of this information. A staff of specialists assists the county agents in planning and carrying out demonstrations with farmers over the State.

*Publications and News.*—Large numbers of publications, including bulletins, circulars, posters, and information cards, are distributed annually. The extension news service to the newspapers of the state consists of (1) mimeographed news letters to all papers issued twice weekly or oftener averaging thirty to forty stories per month; (2) news letters to the daily papers

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\*The extension staff is given on page 23.



through the Associated Press as occasion demands; (3) longer special or feature stories to individual papers or groups of papers when special material is at hand. Monthly letters or printed circulars on poultry, orchards, gardening, dairying, and boys' club work are mailed free to those persons especially interested in these subjects.

*County Agents.*—Every county in the State, by Act of the Legislature in 1929, has a county farm agent. These agents are agricultural college graduates who have had practical farm experience. They devote their time to instructing farmers through demonstrations, personal conferences, meetings, community organizations, publications, letters, and otherwise.

*Home Economics Work.*—This work is carried on under the immediate supervision of Winthrop College. It is, however, a part of the extension work under the Smith-Lever Act, and is under the general direction of the Extension Service. Every county is provided with a home demonstration agent by legislative enactment.

*Negro Demonstration.*—Seventeen local negro agents are employed to work with the negro farmers of the State in sections where the negro population is great. These agents are employed in cooperation with the State College at Orangeburg, where the supervising agent is stationed.

*Live Stock.*—Work in this project is carried on with the idea of promoting the live stock interest of the State along sound, permanent lines. Those desiring to purchase purebred live stock can in most cases secure them within the State from breeders who have been assisted by the Extension Service. This was not true some years ago. Live stock agents have also stimulated the development of pastures and the growing of forage crops and have assisted in the feeding and marketing of cattle and the cooperative purchase of materials needed. There is a revival of interest in hogs and sheep, and these lines of live stock work will no doubt make greater demand for assistance from the Extension Service.

*Dairying.*—The extension dairymen devote their time chiefly to development work connected with bull associations, feed campaigns, dairy schools. Information is furnished concerning the construction of silos and barns, the purchasing of dairy cattle, testing and improvement of herds, and the marketing of products.

*Corn and Cotton Work.*—Cotton demonstrations among farmers are conducted for the purpose of improving the quality of staple and lowering the costs through larger yields per acre. A similar line of demonstration is in operation to put the growing of corn on a more efficient basis.

*Orchards, Gardens and Sweet Potatoes.*—Home orchards and gardens, commercial peach and apple orchards, and the efficient production of sweet potatoes for market are the special interests of the extension horticulturists. The results obtained in the last few years along these lines are far reaching and point the way for the utilization of some of our acres under present conditions.

*Poultry Work.*—The wisdom of increasing the size and quality of farm flocks is now being emphasized, together with efficiency in marketing poultry. For a number of years shipments of live poultry in car lots have been increasing. Many hatcheries are in operation, and every phase of poultry production is being enlarged. A modern poultry plant at Clemson was given to the College by a friend interested in promoting agricultural welfare and readjustment. This is one of the best poultry plants in the cotton states and serves as a place to work out poultry problems, as well as a demonstration to farmers and for teaching purposes.

*Marketing.*—Much of the time of extension workers is spent aiding in marketing. Efforts are made to secure convenient and profitable marketing arrangements for the various crops of the State. The organization of cooperative marketing associations is encouraged. Proper grading and loading for shipment are stressed, particularly where farmers are just beginning to produce a new crop. Shipping point inspection for those who desire it has been provided in cooperation with the Federal Bureau of Agricultural Economics for the protection of shippers of cer-



tain perishable crops. Very little crop surplus is produced for which some outlet has not been found. The chief problem lies in producing and preparing for market preferred quality products.

*Entomology.*—There are two principal lines of this work: first, insect control work; and second, beekeeping work. One specialist is employed who gives his time to the insect work, instructing farmers in the life history, habits, etc., of insects and control measures.

A specialist in beekeeping is employed to develop this industry for which the State has great possibilities.

*Boys' Club Work and Short Course.*—Boys' agricultural clubs are organized with the idea of enlisting the intelligent interest of the boys, and through them their parents, in improved methods of agriculture.

*Agricultural Economics.*—Much farm production takes place blindly without satisfactory knowledge on the part of the farmers and farm credit agencies of the prospect for success in any given enterprise, or for any particular acreage of a crop. There is a very great need for wider dissemination among farm people of economic information that may be used by them as a guide in planning their farm businesses. The importance of such information having been realized, a division of Agricultural Economics has been created in the Extension Service to aid in keeping the farm people of the State better informed on economic matters and to carry to them the results of research work.

Since the beginning of the acreage adjustment work of the Agricultural Adjustment Administration in 1933 under the United States Department of Agriculture, the work of the Extension Service has included the conducting of campaigns to carry out the policies of the AAA in seeking to improve the economic condition of the farmers.

*Agricultural Engineering.*—Two extension specialists are employed to help direct farm development along engineering lines, including terracing, drainage, two-horse and power equipment, as well as plans for farm buildings and other structures.

### *THE ENGINEERING EXPERIMENT STATION*

A majority of the Land Grant Colleges of the United States have established engineering experiment stations, and these have proved of great value in aiding industrial and engineering developments in the various states.

The engineering experiment station of the Clemson Agricultural College was established by the Board of Trustees in July, 1924.

Its purpose is to aid the present industries in the state, to do research work on the material resources of the state with a view of leading to the establishment of new industries, to study methods of utilizing waste products, etc.

In addition to serving the industries of the state and helping to solve engineering problems for the agricultural interests, it is hoped, in cooperation with the stations of other states, to add to the store of scientific and engineering knowledge. The staff consists of well-trained men from the various schools and departments of the college. The laboratories of the several departments of engineering, as well as others, are available for the use of the station in its investigation.

The results of all investigations are to be published in the form of bulletins and circulars to be distributed free to all who may be interested. Copies of publications may be secured by applying to the Director of Engineering Experiment Station, Clemson, South Carolina.

### *RESEARCH IN EDUCATION*

While members of the Education staff have conducted a number of research projects in the past, no definite research organization for educational research has existed prior to 1936, at which time the Department of Educational Research was established in the School of Vocational Education. A grant from the General Education Board and the support of the college made possible the initiation of this program. It is too early yet to announce any findings, but a number of problems are now

under investigation. When the largest single expenditure of funds is involved, and when the largest number of any single enterprise is involved, it seems but natural that progressive educational programs should involve a comprehensive effort in research. Clemson hopes through this new department to help advance the cause of education along appropriate lines.

### *LIVESTOCK SANITARY WORK\**

The Clemson College Live Stock Sanitary Office is a department of Clemson College and is under the supervision of the Agricultural Committee of the Board of Trustees. This office is located in the State Office Building, Columbia, S. C., in order that the best interests of the livestock industry may be served, and is in charge of the State Veterinarian, Dr. W. K. Lewis, who is also Director of this Department.

The principal objectives of this office are tick eradication, tuberculosis eradication, and hog cholera control. In addition to these, all reported outbreaks of contagious, infectious, and communicable diseases of livestock and poultry are investigated and measures recommended for their control and eradication; and quarantine is maintained against the introduction of diseased livestock into the State.

The Columbia office has a fully equipped laboratory for bacteriological, pathological, and serological work, in order that proper and prompt diagnosis of certain diseases may be made. Parasitic research work will be conducted in various sections of the State in cooperation with the Columbia laboratory.

In addition to the force of veterinarians working with the Columbia office, Assistant State Veterinarians are located at strategic points in the State in order to be readily available to all farmers.

On July 1, 1936, twenty-nine practicing veterinarians of the State were commissioned as Deputy State Veterinarians, to assist the State Veterinarian in the control and eradication of con-

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\*Livestock Sanitary Work staff is given on page 22.

tagious and infectious diseases of livestock. The Deputy State Veterinarians are stationed principally in the northern and eastern sections of the State, so these together with the Assistant State Veterinarians in the middle and southern sections of the State, enable the Clemson College Live Stock Sanitary Office to render a service to the livestock industry of the State in keeping with its development and maintain the service at the highest degree of efficiency.

The Clemson College Live Stock Sanitary Office also maintains equipment for handling large stocks of anti-hog-cholera serum, virus, and veterinary biologics, and furnishes these products to the citizens of the State at cost, thereby effecting a saving to them of several thousands of dollars annually.

The live stock sanitary work is required by legislative enactment and is supported by legislative appropriations.

The Bureau of Animal Industry, U. S. Department of Agriculture, cooperates in tick eradication, tuberculosis eradication, and hog cholera control, and appropriates funds in addition to the State appropriation for these objectives.

### MISCELLANEOUS PUBLIC SERVICE

*Entomological and Pathological Inspection.*—This work is carried on under the direction of the State Crop Pest Commission. The State Entomologist and the State Pathologist have charge of this work under the commission.

The work of these officers consists in the control of contagious plant diseases and insect pests. Supervision of all nursery stock sold within the State is a duty of the Crop Pest Commission.

A permit tag issued by the State Crop Pest Commission should be attached to every package of nursery stock, seed, or plants offered for sale or shipment for planting purposes.

*Textile Testing.*—The textile department maintains a yarn testing service for the cotton mills of South Carolina.



*Textile Research.*—Clemson in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture conducts manufacturing tests of grades, staples, and varieties of cotton. Valuable reports based on this work are issued from time to time. Copies of these reports may be acquired by addressing either the College or the Bureau of Agricultural Economics, Washington, D. C.

*Service to Textile and Other Industrial Teachers.*—The College in cooperation with the State Department of Education is glad to assist those who teach night schools by supplying a trained man to assist in the work of organizing classes, organizing courses of study, making plans for teaching evening classes, and actually teaching vocational subjects. Requests for information regarding this service should be addressed to Professor L. R. Booker, Itinerant Teacher Trainer, Industrial Education Department, Clemson. S. C.

*Agricultural Itinerant Teacher Training.*—The members of the staff of Agricultural Education conduct itinerant teacher training with some 200 teachers of vocational agriculture. Particular attention is given by the members of the staff to recent graduates who are teaching vocational agriculture for the first time.

*Research in Vocational Agricultural Education.*—A research program is being initiated this year by the staff in the Department of Agricultural Education in cooperation with the State Supervisors of Agricultural Instruction for the purpose of promoting better vocational instruction in agriculture in the public schools of the State.

*State Vocational Agricultural Judging Contest.*—The Clemson Agricultural College, cooperating with the State Department of Education, conducts annually a judging contest for students of vocational agriculture. The nature of this contest is educational, and many high school boys have an opportunity thereby of improving themselves in selecting better specimens of various agricultural products. The two schools ranking highest in the contest in 1937 were: First, Mt. View, W. F. Moore, coach;



and second, Pickens, R. A. Cole, coach. Jack Snipes of Mt. View was awarded a prize as the highest individual contestant. The following teams won first places: judging dairy cattle, Roebuck; judging all classes of poultry, Ridgeland; judging crops, Mullins; judging horticultural products, Mullins. The Sumter High School won first place in judging general livestock, thereby winning a trip to Kansas City to represent the State in the Vocational Students' Judging Contest at the American Royal Livestock Show.

*State-wide Industrial Education Contest.*—A State-wide Industrial Education contest was inaugurated by Clemson College and the State Department of Education in 1935. This contest has been open to all public schools teaching Industrial Education. The contest includes competition in woodworking, drawing, textiles, and toolcraft. The rules are outlined by members of the faculty representing those departments involved in the competition. Many valuable prizes are given each year to individuals and teams who participate in the contest. The greatest value is the interest created in craftsmanship on part of contestants. Any school may receive announcements concerning contest by writing H. S. Tate, Department of Industrial Education, Clemson, S. C.

*Publications.*—The Agricultural Education staff publishes a monthly bulletin which is used by students of vocational agriculture in the public schools of the State. The content of this bulletin consists largely of the results of experimental work in agriculture which is conducted to assist students in solving their farming problems. This bulletin has been published for fourteen years. The teachers of agriculture have made it a practice to have the numbers of each volume bound for current use. All back numbers have been completely indexed. The bound volumes of Agricultural Education together with the current monthly issues provide the students of vocational agriculture with a record of the results of applicable experimental work in agriculture. At the present time 5000 copies are published monthly. This publication is available to students and teachers of agriculture and others at cost.

### *SUMMER EDUCATIONAL ACTIVITIES*

During the summer, various activities are organized to serve the needs of special groups of students and others. The activities undertaken in the summer of 1937 included the following:

|                                               |                       |
|-----------------------------------------------|-----------------------|
| Conference for Agricultural Teachers.....     | June 1—4              |
| Conference for Future Farmers of America..... | June 1—4              |
| Summer School.....                            | June 7—July 17        |
| South Carolina Society of Engineers.....      | July 16—17            |
| Groups of Farm Women, Extension Service.....  | July 19—24            |
| Opportunity School.....                       | July 24—August 21     |
| Group of Farm Women, Extension Service.....   | July 26—28            |
| Four-H Boys and Girls.....                    | July 29—31            |
| Four-H Boys and Girls.....                    | August 2—4            |
| Extension Service School.....                 | August 23—27          |
| Poultry Short Course.....                     | August 31—September 3 |

### *THE CLEMSON COLLEGE SUMMER SCHOOL*

The Clemson College Summer School provides an opportunity for Clemson and other college students to take advanced courses and hasten graduation, to take special work not offered during the regular session, or to make up back work for time lost on account of illness. It also provides opportunity for high school graduates to "test" their interest and ability in college work at a very nominal cost.

Education courses anticipated for 1938 include primary, elementary, junior high, secondary, vocational and special courses. There has been an unusually strong demand for Clemson-trained teachers.

The following courses of study were offered during the 1937 Summer School. An announcement of the 1938 program may be secured in the spring by addressing either G. E. Metz, Registrar or W. H. Washington, Dean, Clemson College Summer School, Clemson, South Carolina.

## SUMMER SCHOOL COURSES

June 7-July 17  
1937

| Dept. & No.<br>of course                                           | Title | Instructor | Credit |
|--------------------------------------------------------------------|-------|------------|--------|
| Agr. 11—Field Crops                                                | ----- | Collings   | 3      |
| Agr. 20—Soils                                                      | ----- | Collings   | 2½     |
| Agr. 31—Fert. & Manures                                            | ----- | Collings   | 2      |
| Bact. 31—General Bacteriology                                      | ----- | Aull       | 3½     |
| Chem. 11—General Chemistry                                         | ----- | Hunter     | 3½     |
| Chem. 12—General Chemistry                                         | ----- | Hunter     | 3½     |
| Chem. 28s—Organic Chemistry                                        | ----- | Mitchell   | 4      |
| Chem. 33a—Quantitative Analysis                                    | ----- | Mitchell   | 2½     |
| Dairy 22—Introductory Dairy                                        | ----- | Goodale    | 2½     |
| Dairy 25s—Home Dairying                                            | ----- | Goodale    | 2      |
| E. & G. 11—American Gov't. and Political Parties                   | ----- | Holmes     | 2      |
| Ed. 20s—Primary Education, Observation, etc.                       | ----- | Sharpe     | 2      |
| Ed. 21s—Activity Programs                                          | ----- | Sharpe     | 2      |
| Ed. 24s—Childrens Literature                                       | ----- | Willson    | 2      |
| Ed. 26.1—Teach. of Music and Toy Orchestra in the Grades           | ----- | Holleman   | 2      |
| Ed. 27.5—Bldg. of Programs for Assemblies and<br>Special Occasions | ----- | Holleman   | 2      |
| Ed. 28.6—Elementary Piano With Music Appreciation                  | ----- | Holleman   | 2      |
| Ed. 31s—Centers of Interest, Int. Grades                           | ----- | Willson    | 2      |
| Ed. 32s—Observation and Practice Teaching                          | ----- | Willson    | 2      |
| Ed. 33—Organization of Courses of Study                            | ----- | Brock      | 3      |
| Ed. 34—Problems in Agricultural Education                          | ----- | Monroe     | 3      |
| Ed. 35s—Teach. of Art Metal Work                                   | ----- | Brock      | 2      |
| Ed. 36s—Teach. of Soc. Science in Jr. High School                  | ----- | Hines      | 2      |
| Ed. 37s—General High School Methods                                | ----- | Hines      | 2      |
| Ed. 37.5s—Teach. of History and Civics in High School              | ----- | Hines      | 2      |
| Ed. 38s—Methods in Classroom Health Ed. in Intermediate Grades     | ----- | Hines      | 2      |
| Ed. 39—Principles of Secondary Education                           | ----- | Tate       | 2      |
| Ed. 55—Methods in Adult and Continuation Teach.                    | ----- | Tate       | 2      |
| Ed. 56—Ed. and Vocational Guidance                                 | ----- | Wilson     | 2      |
| Ed. 58—Educational Psychology                                      | ----- | Tate       | 2      |
| Ed. 59—Pupil Testing Programs                                      | ----- | Tate       | 2      |
| Ed. 112—Cooperative and Apprenticeship Training                    | ----- | Wilson     | 2      |
| Ed. 113—Supervision of Ed. Programs                                | ----- | Booker     | 2      |
| Elect. 30s—Practical Electricity                                   | ----- | Philpot    | 2      |
| Elect. 35—Electrical Machinery                                     | ----- | Philpot    | 2½     |
| Elect. 36—Elect. Welding                                           | ----- | Philpot    | 3      |
| Limited enrollment, \$5 Lab. fee.                                  |       |            |        |
| Elect. 38s—High School Electricity                                 | ----- | Philpot    | 2      |
| English 15—Comp. and American Literature                           | ----- | Bradley    | 3      |
| English 16—Comp. and American Literature                           | ----- | Kinard     | 3      |
| English 21—Major Poets, Age of Romanticism                         | ----- | Kinard     | 2      |
| English 22—Major Poets, Victorian Age                              | ----- | Kinard     | 2      |
| English 31—Public Speaking                                         | ----- | Bradley    | 2      |
| English 32—Business Law                                            | ----- | Bradley    | 2      |
| French 11—First Year French                                        | ----- | Rhyne      | 2      |
| French 21—French for Teachers                                      | ----- | Rhyne      | 2      |
| German 11—Beginners' German                                        | ----- | Rhyne      | 2      |
| History 1—Development of South Carolina                            | ----- | Holmes     | 2      |
| History 14—American Econ. and Social History                       | ----- | Holmes     | 2      |

|                                                      |                       |                 |
|------------------------------------------------------|-----------------------|-----------------|
| Ind. Arts 55s—Advanced Woodwork .....                | Marshall.....         | 2               |
| Ind. Arts 56s—Projects in Woodwork .....             | Marshall.....         | 2               |
| Ind. Arts 57s—Industrial Arts for Teachers.....      | Marshall.....         | 2               |
| Lib. Sci. 40s—Adm. School Library .....              | Graham.....           | 2               |
| Lib. Sci. 41s—Book Selection .....                   | Goodman.....          | 2               |
| Lib. Sci. 42s—Reference and Bibliography .....       | Graham.....           | 2               |
| Math. 10s—Review of H. S. Mathematics.....           | Hunter.....           | 2*              |
| Math. 11s—Plane Trigonometry .....                   | Hunter.....           | 3               |
| Math. 12s—College Algebra and Analytic Geometry..... | Hunter.....           | 3               |
| Math. 23—Differential Calculus .....                 | Hunter or Burton..... | 3               |
| Math. 24—Integral Calculus .....                     | Hunter or Burton..... | 3               |
| M. E. 30—Materials of Engineering.....               | Philpot.....          | 2               |
| Physics 11—General Physics .....                     | Brown or Huff.....    | 3 $\frac{2}{3}$ |
| Physics 12—General Physics .....                     | Brown or Huff.....    | 3 $\frac{2}{3}$ |
| Physics 21—Sophomore Physics .....                   | Brown or Huff.....    | 4               |
| Physics 22—Electricity and Magnetism .....           | Brown or Huff.....    | 4               |
| Physics 23, 24—Laboratory Physics .....              | Brown or Huff.....    | 3 $\frac{2}{3}$ |
| Soc. Sci. 41s—Industrial Sociology .....             | Booker.....           | 2               |
| Textiles 11s—General Textiles .....                  | McKenna.....          | 2               |
| Typewr. 30s—Beginners' Typewriting .....             | Hudgens.....          | 3**             |
| Typewr. 40s—Advanced Typewriting .....               | Hudgens.....          | 3**             |
| W. D. 21s-22s—Design .....                           | McKenna.....          | 2               |
| W. D. 31s-32s—Dobby Design .....                     | McKenna.....          | 2               |
| W. D. 34s—Fabric Analysis .....                      | McKenna.....          | 1               |
| W. D. 39s—Loom Fixing .....                          | McKenna.....          | 3               |
| Y. M. 29s—Cotton Grading (\$15.00) .....             | Person.....           | 2               |

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\*No college credit. This figure for determining tuition charge only.

\*\*Shorthand and typewriting receive elective credit for Clemson Education students. Others should have Head of Major Department approve in advance if credit is desired.

## PART VII--STUDENT REGISTER

### WAR DEPARTMENT TRAINING STAFF

|                             |                              |
|-----------------------------|------------------------------|
| Colonel Charles W. Weeks    | Infantry                     |
| Major James P. Gammon       | Infantry                     |
| Major Russell F. Walthour   | Infantry                     |
| Major George L. Ramsey      | Infantry                     |
| Major Albert H. Dumas       | Infantry                     |
| Major David E. Barnett      | Infantry                     |
| Sergeant Harry J. Wilkinson | Detached Enlisted Men's List |
| Sergeant Henry S. Heath     | Detached Enlisted Men's List |
| Sergeant Kenney R. Helton   | Detached Enlisted Men's List |
| Sergeant Ralph G. Marshall  | Detached Enlisted Men's List |

### CADET BRIGADE ORGANIZATION

Colonel F. L. Bell (Brigade Commander).  
 Colonel R. J. Farmer (Brigade Executive).  
 Captain F. W. Bagnal (Brigade Adjutant).  
 Captain J. W. Adams (Brigade Chaplain).  
 Master Sergeant J. S. Baskin (Brigade Sergeant Major).

### BAND

|                   |                   |
|-------------------|-------------------|
| Captain           | R. M. Murray, Jr. |
| First Lieutenant  | J. K. Chapman     |
| First Lieutenant  | H. C. Green       |
| Second Lieutenant | R. Maynard Denny  |
| Second Lieutenant | R. G. Pollitzer   |
| First Sergeant    | L. C. Horner, Jr. |
| Supply Sergeant   | P. H. McCorkle    |
| Sergeant          | R. A. Banister    |
| Sergeant          | D. D. Crosby      |
| Sergeant          | F. P. Guerry, Jr. |
| Sergeant          | J. R. Martin, Jr. |
| Sergeant          | B. A. Peeling     |
| Sergeant          | L. M. Rhodes, Jr. |
| Corporal          | D. G. Adams, Jr.  |
| Corporal          | W. C. Law         |
| Corporal          | J. C. McKnight    |
| Corporal          | Earl Mazo         |
| Corporal          | G. M. Turner      |
| Corporal          | F. B. Elmore      |

### REGIMENTAL ORGANIZATION

#### FIRST REGIMENT

|                                      |                              |
|--------------------------------------|------------------------------|
| Colonel W. R. Cheves                 | Regimental Commander         |
| Lieutenant Colonel A. E. Stalvey     | Regimental Executive Officer |
| Captain A. R. Waters                 | Regimental Adjutant          |
| First Lieutenant J. C. Shelley       | Regimental Chaplain          |
| Master Sergeant A. H. Pregall, Jr.   | Regimental Sergeant Major    |
| Staff Sergeant F. H. H. Calhoun, Jr. | Regimental Color Sergeant    |
| Staff Sergeant G. C. Commander       | Regimental Color Sergeant    |



## BATTALION ORGANIZATION

## FIRST BATTALION

Lieutenant Colonel E. H. Fuller.....Battalion Commander  
 Captain J. H. Riddle.....Battalion Executive Officer  
 First Lieutenant J. M. Gantt.....Battalion Adjutant  
 Staff Sergeant J. F. Brailsford.....Battalion Sergeant Major

## COMPANY "A"

## COMPANY "B"

## COMPANY "C"

## COMPANY "D"

*Captains*

Joyner, N. P.

Ray, E. C.

Ruff, W. H.

Ambrose, J. R.

*First Lieutenants*

Lachicotte, W. S. (\*)

Wilkinson, J. C., Jr. (\*)

Cooler, C. H. (\*)

Stanley, T. E. (\*)

Dorn, R. W. (\*\*)

Eatmon, T. W.

Culpepper, J. M.

Gregorie, W. D., Jr.

Dunlap, F. A.

Richardson, D.

Huff, W. D.

Hoffman, S. O.

Lever, J. H.

*Second Lieutenants*

Brewster, J. S.

Boatwright, L. T., Jr.

Boulware, L. M.

Brice, A. M.

Fore, W. C.

Evans, D. W.

Clemmons, J. R., Jr.

Hall, F. M.

Federline, J. R.

Crenshaw, W. J.

Helms, C. L.

Harlee, R. L.

Macomson, W. W.

*First Sergeants*

Nickles, J. B.

Woods, C.

Covington, H. M.

Shepherd, E. W.

*Supply Sergeants*

Salvo, G. C.

Vaughan, C. L., Jr.

Drew, P. N.

*Sergeants*

Dixon, J. E.

Anderson, J. F.

Champion, T. M.

Duvall, J. E.

Aull, C. M.

Gaston, C. C.

Frazier, J. B.

Cathcart, J. W.

McCown, K. J.

Gibson, H. C.

Dewey, C. A., Jr.

McLeod, B. F.

Gray, Zack

Lee, P. E., Jr.

Simkins, J. E., Jr.

Jones, E. M.

McAlpine, L. E.

Stackhouse, J. W.

Mackintosh, J. D., Jr.

Young, T. B., Jr.

Smith, J. G.

(\*) Indicates Company Executive Officer.

(\*\*) Indicates Assistant Company Executive.

*Corporals*

|                  |                     |                     |
|------------------|---------------------|---------------------|
| Bird, E. R.      | Bateman, F. F.      | Blair, C. H.        |
| Brady, H. G.     | Bickley, D. W.      | Bryant, R. H.       |
| Darwin, D. P.    | Epting, S. W.       | Bull, L. H.         |
| Fender, W. C.    | Evans, L. R., Jr.   | Crumbley, J. C.     |
| Ferguson, H. E.  | Gray, F. F.         | Davis, R. D.        |
| Forrester, H. S. | Guy, R. A.          | Ehrhardt, J. S.     |
| Garrett, W. A.   | Hammond, J. H. G.   | Floyd, E. E.        |
| Lindsay, J. B.   | Heriot, J. D.       | Hester, B. F.       |
| McLaurin, C. H.  | Horton, L. S.       | Jeffcoat, B. D.     |
| May, D. R.       | McGinty, W. M.      | Muller, J. C., Jr.  |
| Nelson, P. H.    | Simpson, J. W., Jr. | Sanders, A. W., Jr. |
| Richardson, T.   | Thayer, D. R.       | Swenson, H. M.      |
|                  | Woody, R. E.        |                     |

*BATTALION ORGANIZATION**SECOND BATTALION*

|                                         |                             |
|-----------------------------------------|-----------------------------|
| Lieutenant Colonel R. Milton Denny----- | Battalion Commander         |
| Captain F. J. Aichele-----              | Battalion Executive Officer |
| First Lieutenant C. R. Saverance-----   | Battalion Adjutant          |
| Staff Sergeant J. C. Cook-----          | Battalion Sergeant Major    |

*COMPANY "E"**COMPANY "F"**COMPANY "G"**COMPANY "H"**Captains*

|              |             |             |                    |
|--------------|-------------|-------------|--------------------|
| Peden, T. E. | Dunn, W. E. | Todd, W. P. | Morgan, J. W., Jr. |
|--------------|-------------|-------------|--------------------|

*First Lieutenants*

|                    |                 |                 |                      |
|--------------------|-----------------|-----------------|----------------------|
| Bethea, P. W. (*)  | Huff, J. R. (*) | Byrd, H. D. (*) | Morgan, O. F. (*)    |
| Abercrombie, P. R. | Jones, R. J.    | Lytton, C. B.   | Lane, McMillan       |
| Bobo, F. E., Jr.   | Seawell, J. T.  | McKinney, H. H. | Lawrence, R. E., Jr. |

*Second Lieutenants*

|                  |                   |                    |                |
|------------------|-------------------|--------------------|----------------|
| Davis, A. F.     | Dukes, W. W., Jr. | Derrick, F. B.     | Durban, G. A.  |
| DuPre, W. M.     | McSwain, J. W.    | Helms, C. L.       | Folger, A. J.  |
| Malphrus, L. D.  | Motes, M. M.      | Hester, J. J., Jr. | Hancock, W. F. |
| Sanders, A. L.   | Searson, C. B.    | Hodges, G. H.      | Parker, J. P.  |
| Yarbrough, L. I. |                   | LaRoche, J. J.     | Prince, A. G.  |
|                  |                   | McCrary, R. R.     | Ramsay, T. E.  |
|                  |                   | Verner, A. C.      |                |

*First Sergeants*

|               |            |                   |               |
|---------------|------------|-------------------|---------------|
| Sweeny, J. O. | Cox, W. T. | Hughes, Frederick | Garick, L. T. |
|---------------|------------|-------------------|---------------|

*Sergeants*

|                       |               |                       |                |
|-----------------------|---------------|-----------------------|----------------|
| Baldwin, M. C. L.     | Boyle, W. B.  | Crook, Martin, Jr.    | Davis, N. R.   |
| Chovan, P. B.         | Citron, L. A. | Henderson, W. T., Jr. | Hester, Robert |
| Harrison, J. H.       | Coker, G. R.  | Stokes, W. H.         | Shealy, J. L.  |
| Mahon, P. M.          | Dobson, R. M. | Thomas, E. H., Jr.    | Smith, J. K.   |
| Skardon, S. L.        | Scott, B. E.  |                       | Thomson, B. F. |
| Thackston, W. H.      |               |                       |                |
| Thompson, F. A.       |               |                       |                |
| Warner, C. T.         |               |                       |                |
| Young, Ernest L., Jr. |               |                       |                |

(\*) Indicates Company Executive Officer.

*Corporals*

|                      |                      |                   |                    |
|----------------------|----------------------|-------------------|--------------------|
| Burdette, E. K., Jr. | Almeida, J. L.       | Bridges, M. L.    | Bethea, W. H.      |
| Farmer, J. G.        | Carrigan, E. W.      | Bundy, W. H.      | Farnum, C. O., Jr. |
| Furtick, O. K.       | Copley, W. M.        | Hanna, H. H.      | Ivey, J. D.        |
| Gardner, E. G.       | Gray, J. F.          | Hawkins, P. C.    | McCord, R. L.      |
| Garrett, P. T.       | Hardee, J. C.        | Houck, J. L.      | McKeown, Harry     |
| Gillespie, R. M.     | Hayes, C. B.         | Lawton, M. R.     | Marshall, R. B.    |
| Graham, A. D.        | Hunt, F. M.          | Lindsay, R. J.    | Mays, H. B.        |
| Hubbard, F. M.       | Jordan, J. E.        | Liles, J. R.      | Mills, F. C., Jr.  |
| Irick, E. F.         | Lawton, C. B.        | Littlejohn, C. E. | Orr, J. L.         |
| Kerhulas, T. E.      | Lemmon, J. C.        | Newton, C. G.     | Rhyne, W. A.       |
| Quantz, W. P.        | McClure, G. W.       | Propst, M. C.     | Woodward, L. J.    |
| Scott, E. B.         | Pender, M. T.        | Smith, L. B.      | Wright, M. E.      |
| Stewart, E. R.       | Richardson, J. O. W. |                   |                    |
|                      | Rivers, P. F.        |                   |                    |
|                      | Thomas, J. M.        |                   |                    |

*REGIMENTAL ORGANIZATION*

## SECOND REGIMENT

|                                   |                              |
|-----------------------------------|------------------------------|
| Colonel T. I. Stafford            | Regimental Commander         |
| Lieutenant Colonel B. S. Jordan   | Regimental Executive Officer |
| Captain R. R. McGee               | Regimental Adjutant          |
| First Lieutenant K. N. Vickery    | Regimental Chaplain          |
| Master Sergeant R. B. Fickling    | Regimental Sergeant Major    |
| Staff Sergeant F. E. Culvern, Jr. | Regimental Color Sergeant    |
| Staff Sergeant W. B. Zeigler      | Regimental Color Sergeant    |

*BATTALION ORGANIZATION*

## FIRST BATTALION

|                                 |                             |
|---------------------------------|-----------------------------|
| Lieutenant Colonel A. W. Taylor | Battalion Commander         |
| Captain H. G. Stokes            | Battalion Executive Officer |
| First Lieutenant J. W. Parker   | Battalion Adjutant          |
| Staff Sergeant T. R. Bainbridge | Battalion Sergeant Major    |

| COMPANY "A"              | COMPANY "B"       | COMPANY "C"     | COMPANY "D"        |
|--------------------------|-------------------|-----------------|--------------------|
| <i>Captains</i>          |                   |                 |                    |
| Robinson, R. W.          | Jackson, R. V.    | Sanders, A. S.  | Geisberg, H.       |
| <i>First Lieutenants</i> |                   |                 |                    |
| Pritchett, J. U. (*)     | Harris, F. V. (*) | Barnes, J. (*)  | King, J. N. (*)    |
| Harris, W. W.            | Dwight, K. B.     | Mayne, S. C.    | Clayton, D. B.     |
| Hoefler, T. M.           | Rush, W. W.       | Reynolds, R. M. | Graham, L. V., Jr. |

*Second Lieutenants*

|                 |                    |                 |                    |
|-----------------|--------------------|-----------------|--------------------|
| Hills, W. A.    | Langston, R. H.    | Way, W. A.      | Moorer, C. P., Jr. |
| Jenkins, R. M.  | Linley, J. W., Jr. | Anderson, J. W. | Mouchet, W. R.     |
| Kitchens, E. L. | Mitchell, Henry    | Hoffman, J. C.  | Pike, C. E.        |
| Pinson, J. B.   | Spears, R. C.      | Lawhon, H. L.   | Thompson, S. N.    |

(\*) Indicates Company Executive Officer.

*First Sergeants*

|                |                   |             |                 |
|----------------|-------------------|-------------|-----------------|
| Talbert, T. W. | Hutchinson, D. M. | Troy, H. P. | Bookhart, H. U. |
|----------------|-------------------|-------------|-----------------|

*Supply Sergeants*

|               |                 |               |                 |
|---------------|-----------------|---------------|-----------------|
| Garner, A. R. | McAlhany, H. J. | Ferree, R. J. | Anderson, R. F. |
|---------------|-----------------|---------------|-----------------|

*Sergeants*

|                   |                     |                         |                     |
|-------------------|---------------------|-------------------------|---------------------|
| Abrams, E. P.     | Botts, E. O., Jr.   | Boyd, S. J.             | Bailey, J. R.       |
| Ardis, T. B.      | Ford, P. G.         | Chapman, A. H.          | Burruss, D. E., Jr. |
| Herlong, H. K.    | Foster, W. T.       | Gibert, J. W.           | Carlisle, W. A.     |
| Hiers, M. D.      | Howard, T. G.       | Hudson, W. M.           | Feinstein, H.       |
| Johnson, M. C.    | McCurry, E. T.      | Jackson, R. F., Jr.     | Henry, R. L., Jr.   |
| Montgomery, J. B. | Nichols, M. M., Jr. | Miley, C. C.            | McMillan, Joel      |
| Pope, D. T.       |                     | Mitchell, W. B. R., Jr. | Morgan, D. C.       |
|                   |                     | Northrup, W. B.         | Thomas, H. J.       |
|                   |                     | Salley, H. G.           | Vickery, V. V.      |
|                   |                     | Waters, L. E.           |                     |
|                   |                     | Whitlock, F. M.         |                     |

*Corporals*

|                    |                      |                          |                    |
|--------------------|----------------------|--------------------------|--------------------|
| Altman, D. S., Jr. | Anderson, C. E.      | Anderson, W. D., Jr.     | Bradbury, D. W.    |
| Bryant, R. H.      | Bagnal, H. T.        | Cappleman, F. J. D., Jr. | Earle, J. Berry    |
| Dixon, J. S., Jr.  | Foster, W. W., Jr.   | Denny, H. S.             | Hall, H. P.        |
| Hackett, C. B.     | Johnson, H. A.       | Hunt, S. C.              | Harper, J. J.      |
| Jay, J. E.         | Jolly, G. C.         | Jackson, W. L.           | McFadden, J. B.    |
| Kirkpatrick, C. D. | Jones, C. L.         | Little, J. F.            | McKinney, W. P.    |
| Maxey, R. L.       | Kearse, W. H.        | Livingston, W. C.        | Martin, F. C., Jr. |
| Miller, G. M.      | Kennedy, G. C.       | McLaurin, K. F.          | Moore, G. S.       |
| Moorman, R. W.     | King, P. P., Jr.     | Mazinski, R. T.          | Okurowski, W. B.   |
| Murrah, T. A., III | King, R. A.          | Padgett, C. A.           | Rogers, L. V.      |
| Scarborough, R. W. | Pericola, R. A., Jr. | Price, V. L.             | Segars, A. L.      |
| Thomas, R. L., Jr. | Planck, C. G., Jr.   | Reid, S. F.              | Sharpe, R. G.      |
|                    | Plowden, W. M.       | Sells, C. K.             | Switzer, J. L.     |
|                    | Smith, T. L., Jr.    | Shuler, Glenn            | Tolbert, G. E.     |
|                    | Van Wyck, W. O.      | Simpson, A. T.           | Winfield, J. A.    |
|                    |                      | Stallworth, J. M.        |                    |
|                    |                      | Stoudemire, G. A.        |                    |

*BATTALION ORGANIZATION**SECOND BATTALION*

|                                   |                             |
|-----------------------------------|-----------------------------|
| Lieutenant Colonel B. N. Skardon  | Battalion Commander         |
| Captain H. B. Risher              | Battalion Executive Officer |
| First Lieutenant T. E. Richardson | Battalion Adjutant          |
| Staff Sergeant H. L. Beach        | Battalion Sergeant Major    |

*COMPANY "E"**COMPANY "F"**COMPANY "G"**COMPANY "H"**Captains*

Hickey, W. E.

Oliver, J. H.

Paulsen, G. C.

Gibson, C. F.

*First Lieutenants*

|                  |                    |                     |                    |
|------------------|--------------------|---------------------|--------------------|
| Davis, J. W. (*) | McKeown, C. M. (*) | Marshall, J. D. (*) | Settle, J. L. (*)  |
| Gill, W. T., Jr. | Schirmer, C. C.    | Ferguson, S. A.     | Disher, J. H., Jr. |
| Martin, R. W.    | Shell, J. C., Jr.  | Josey, D. K.        | Smith, Edward H.   |

*Second Lieutenants*

|                   |                |                 |                 |
|-------------------|----------------|-----------------|-----------------|
| Bethea, A. W.     | Hair, L. M.    | Chastain, D. R. | Brewster, J. S. |
| Horton, E. V.     | Miller, M. M.  | Thompson, A. R. | Darby, R. T.    |
| Inderfurth, K. H. | Seigler, C. E. | Truluck, J. H.  | Hanna, T. R.    |
| Payne, W. J.      | Stokely, D. R. | Vance, Z.       | Payne, A. C.    |
| Rawl, H. J., Jr.  | Terry, W. B.   |                 | Terrell, L. E.  |
| Rogers, H. C.     | Varn, J. D.    |                 | Wade, G. H.     |

*First Sergeants*

|              |                  |             |
|--------------|------------------|-------------|
| Guess, J. H. | Covington, J. C. | Carlson, P. |
|--------------|------------------|-------------|

*Supply Sergeants*

|             |                |               |                |
|-------------|----------------|---------------|----------------|
| Page, G. D. | Loyless, E. M. | Watson, R. W. | Avinger, H. C. |
|-------------|----------------|---------------|----------------|

*Sergeants*

|                      |                      |                    |                  |
|----------------------|----------------------|--------------------|------------------|
| Bracey, J. H.        | Cooper, H. M.        | Cason, W. S.       | Boselli, T. J.   |
| Brackett, W. E., Jr. | Copeland, O. L., Jr. | Cosgrove, H. H.    | Brodie, G. A.    |
| Bryce, F. J.         | Durban, F. W.        | Griffin, E. W.     | Carson, R. G.    |
| Coleman, W. S.       | Gage, G. W.          | Kelly, J. W.       | Crouch, H. M.    |
| Jones, C. M.         | Knox, F. T.          | Lafaye, W. L.      | Kirton, J. J.    |
| Miley, W. F.         | Stanfield, T. F.     | Page, N. R.        | Patterson, S. P. |
| Parker, H. C.        | Watson, J. D.        | Scarborough, F. H. |                  |
| Radcliffe, J. H.     | Wilks, J. L.         |                    |                  |

*Corporals*

|                     |                  |                      |                      |
|---------------------|------------------|----------------------|----------------------|
| Bouton, W. I.       | Arrington, L. R. | Bryan, C. B.         | Cobb, C. D.          |
| Collins, W. D.      | Carson, C. R.    | Cochran, R. P.       | Fogle, H. L.         |
| McCutchen, L. E.    | Cook, H. L.      | McDowell, E. B.      | Forester, R. C., Jr. |
| McMillan, G. M.     | Flathmann, E. R. | Moorer, D. F.        | Levin, J. H.         |
| Shelley, R. C.      | Marshall, P.     | Sottile, S. V.       | Manning, L. W.       |
| Smith, C. C.        | Truluck, J. W.   | West, T. P., Jr.     | Meree, C. E., Jr.    |
| Spires, C. E., Jr.  | Ward, H. E.      | Whitmire, F. W., Jr. | Miles, A. O.         |
| Webb, H. N.         | Webb, B. L.      | Williams, A. V., Jr. | Robinson, C. R.      |
| Wheeler, E. A., Jr. |                  | Yarborough, B. H.    | Triplett, C. H.      |

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(\*) Indicates Company Executive Officer.



# GRADUATES OF 1937

Students who rank in the upper ten per cent of the class  
are graduated with honor

## SCHOOL OF AGRICULTURE

### *Bachelor of Science Degree*

#### *Agriculture—Agricultural Economics Major*

|                    |                |                       |                              |           |
|--------------------|----------------|-----------------------|------------------------------|-----------|
| Edgar McCosh       | Alexander..... | Chester               | Benjamin Tillman Lanham, Jr. | Edgefield |
| Oliver Harold Folk | .....          | Charleston            | Jesse Jefferson Moorhead     | Anderson  |
|                    |                | Samuel Julius Seigler | .....                        | Anderson  |

#### *Agriculture—Agronomy Major*

|                        |       |           |                        |       |             |
|------------------------|-------|-----------|------------------------|-------|-------------|
| Edward Lee Asbill, Jr. | ..... | Leesville | *William Monroe Epps   | ..... | Latta       |
| William Clay Breazeale | ..... | Clemson   | *Jess Willard Jones    | ..... | Greenville  |
| Leland Heywood Burgess | ..... | Belton    | William Thomas McClure | ..... | Westminster |

#### *Agriculture—Animal Husbandry Major*

|                       |       |                   |                        |            |       |
|-----------------------|-------|-------------------|------------------------|------------|-------|
| Madison Peyton Howell | ..... | Walterboro        | Joseph McKissick Jeter | .....      | Union |
|                       |       | Henry Kent Segars | .....                  | Hartsville |       |

#### *Agriculture—Dairy Major*

|                       |       |        |                                 |         |
|-----------------------|-------|--------|---------------------------------|---------|
| James Franklin Norris | ..... | Belton | Charles Rudolph Swearingen, Jr. | Trenton |
|-----------------------|-------|--------|---------------------------------|---------|

#### *Agriculture—Entomology Major*

|                    |       |              |                            |            |
|--------------------|-------|--------------|----------------------------|------------|
| Ernest Hazel Floyd | ..... | Augusta, Ga. | John Howard Girardeau, Jr. | McRae, Ga. |
|--------------------|-------|--------------|----------------------------|------------|

#### *Agriculture—Horticulture Major*

|                     |       |         |                             |              |
|---------------------|-------|---------|-----------------------------|--------------|
| *Fred Herbert Lewis | ..... | Loris   | Roderick McIver Watson, Jr. |              |
| Elbert Lacon Ryan   | ..... | Trenton |                             | Ridge Spring |

#### *Agricultural Engineering*

|                         |       |                 |                             |             |
|-------------------------|-------|-----------------|-----------------------------|-------------|
| George Easterling Bryan | ..... | Allendale       | John Clifton McWhorter, Jr. |             |
| Perry McPherson Buckner | ..... | Walterboro      |                             | Spartanburg |
| Ralph Cleveland Glanton |       | Grantville, Ga. | Julian Thomas Reames        | .....       |
|                         |       |                 | Francis Broadus Smith       | .....       |
|                         |       |                 |                             | Johnston    |

#### *Agricultural Economics and General Science*

|                       |                  |
|-----------------------|------------------|
| David Townly Redfearn |                  |
|                       | Wadesboro, N. C. |

#### *Animal Husbandry and Vocational Agricultural Education*

|                      |       |             |
|----------------------|-------|-------------|
| Edward Briggs Baskin | ..... | Bishopville |
|----------------------|-------|-------------|

## SCHOOL OF CHEMISTRY

### *Bachelor of Science Degree*

#### *Chemistry*

|                        |       |                   |                          |       |                 |
|------------------------|-------|-------------------|--------------------------|-------|-----------------|
| James Morrell Bennett  | ..... | Clemson           | Edwin Carl Heikkila      | ..... | Brooklyn, N. Y. |
| Charles Nelson Calhoun | ..... | Valdosta, Ga.     | *Gordon McGlohon Nichols |       |                 |
| John Fretwell Dunlap   | ..... | Clemson           |                          |       | Savannah, Ga.   |
| Douglas LaRoche Farr   | ..... | Savannah, Ga.     | Henry Sherwood Price     | ..... | Walterboro      |
| Edward Heap            | ..... | Cranston, R. I.   | DeWitt Boyd Stone        | ..... | Williamston     |
|                        |       | *Richard Benjamin | Wearn                    | ..... | Newberry        |

\*With Honor.

## SCHOOL OF ENGINEERING

*Bachelor of Science Degree**Architecture*

Louis Alexander Edwards \_\_\_\_\_ William Arthur Speer \_\_\_\_\_ Anderson  
 Highlands, N. C.

*Bachelor of Civil Engineering Degree*

William Herman Bertram, Jr. \_\_\_\_\_ Norman Milford Jackson \_\_\_\_\_ Parris Island  
 Queens Village, N. Y. C. Raymond Carlton Maness \_\_\_\_\_ Georgetown  
 James Bruce Floyd \_\_\_\_\_ Lake City John Ellison Muldrow \_\_\_\_\_ Bishopville  
 Luther Alfonso Gambill \_\_\_\_\_ Seneca Lucius Alvin Perry \_\_\_\_\_ Gresham  
 Basil Newton Gilmore \_\_\_\_\_ Ravenels Cephas Perry Quattlebaum \_\_\_\_\_ Johnston  
 McDonald Isbell Shuford \_\_\_\_\_ Georgetown

*Bachelor of Electrical Engineering Degree*

Jesse Leroy Cox \_\_\_\_\_ Union Frank Crawford Mintz \_\_\_\_\_  
 \*William Folk, Jr. \_\_\_\_\_ Moncks Corner East Haven, Conn.  
 \*Edward Starkey Franck Giles, III \_\_\_\_\_ Greenwood  
 John Holt Green \_\_\_\_\_ Clayton, Ga. William Leroy Nelms \_\_\_\_\_ Orangeburg  
 Charles Dixon Hopkins \_\_\_\_\_ Rowesville Walter Manly Rodgers, Jr. \_\_\_\_\_ Greenwood  
 James Samuel Hunter \_\_\_\_\_ Clemson Gordon F. Rogers \_\_\_\_\_ Mauldin  
 Robert Ellis LeRoy \_\_\_\_\_ Tignall, Ga. Henry Frederick Sander \_\_\_\_\_ Charleston  
 Samuel Linton McCleskey, Jr. \_\_\_\_\_ Lykens, Penn.  
 Greenwood Robert Charles Sweeting \_\_\_\_\_ Charleston

*Bachelor of Mechanical Engineering Degree*

Stephen Rutledge Clark \_\_\_\_\_ Winnsboro James Douglas Nisbet \_\_\_\_\_ Van Wyck  
 \*Ralph Lewis Geisberg \_\_\_\_\_ Anderson Thomas Moore Rickards \_\_\_\_\_  
 Curtis Abercrombie Gray \_\_\_\_\_ Williamston West Palm Beach, Fla.  
 James Tift Mann \_\_\_\_\_ Spartanburg William Maynard Simpson \_\_\_\_\_ Williamston  
 Talbert Iredell Martin, Jr. \_\_\_\_\_ Florence Lucius Aldret Williams \_\_\_\_\_ Charleston

## SCHOOL OF GENERAL SCIENCE

*Bachelor of Science Degree**General Science*

Roy Durham Adams \_\_\_\_\_ Seneca \*Winston Alven Lawton \_\_\_\_\_  
 Harry Scott Ashmore \_\_\_\_\_ Greenville Matewan, West Va.  
 Henry Parrott Bacot \_\_\_\_\_ Lamar Hamlet Wilkins LeMaster \_\_\_\_\_ Gaffney  
 Marion James Beam \_\_\_\_\_ Gaffney Rodman Lemon \_\_\_\_\_ Barnwell  
 Joseph Nesbitt Berry \_\_\_\_\_ Union Oliver Wardlaw Leonard, Jr. \_\_\_\_\_  
 Thomas Robert Bowlan \_\_\_\_\_ Belton Spartanburg  
 Benjamin Cochran Boyd \_\_\_\_\_ Spartanburg Harold Dempsey Lewis \_\_\_\_\_ Mullins  
 Robert Sims Campbell, Jr. \_\_\_\_\_ Edgar Allan Poe McCarthy, Jr. \_\_\_\_\_  
 Knoxville, Tenn. White Oak, Ga.  
 Robert Andrew Carter \_\_\_\_\_ Miley Newton Craig McCorkle, Jr. \_\_\_\_\_ York  
 William Lucian Cheatham \_\_\_\_\_ Abbeville Henry Thompson Malone \_\_\_\_\_ Hartsville  
 Edwin Eugene Dacus, Jr. \_\_\_\_\_ Rock Hill Lane Elwood Mays \_\_\_\_\_ Fair Play  
 James Albert Dew, Jr. \_\_\_\_\_ William Eugene Mullinnix \_\_\_\_\_ Iva  
 West Palm Beach, Fla. Frederick Douglas Patterson \_\_\_\_\_  
 William Robins English \_\_\_\_\_ Columbia Valhalla, N. Y.  
 William Marbry Gordon \_\_\_\_\_ Ware Shoals \*Marvin Clyde Vallentine, Jr. \_\_\_\_\_ Cope  
 Joseph Crosby Jones \_\_\_\_\_ Aiken George Corbett Warren, Jr. \_\_\_\_\_ Sumter  
 Louis Grant Kelly \_\_\_\_\_ Anderson Edward Descombe Wells, Jr. \_\_\_\_\_  
 Henry Leland Law, Jr. \_\_\_\_\_ Hartsville Savannah, Ga.  
 \*Cecil Glenn White, Jr. \_\_\_\_\_ Tucapau

## SCHOOL OF TEXTILES

*Bachelor of Science Degree**Textile Chemistry*

|                                   |            |                              |          |
|-----------------------------------|------------|------------------------------|----------|
| John Charles Brooks-----          | Gray Court | Walter Keys Lewis, Jr.-----  | Columbia |
| Berry Hayden Camp-----            | Chesnee    | Thomas Francis McNamara----- | Taylors  |
| Stonewell Jackson Craig, Jr.----- | Greenville | Harry Walker Smith-----      | York     |
| *Everett Pierce Ward-----         |            | Graniteville                 |          |

*Textile Engineering*

|                              |            |                                     |               |
|------------------------------|------------|-------------------------------------|---------------|
| Louis Moore Acker-----       | Anderson   | *Robert Eldredge Hilton-----        | New Brookland |
| William Major Allison-----   | Greer      | John Tilson Johnson-----            | Winnsboro     |
| William Hal Ballard-----     | Clover     | Henry Daniel Leitner-----           | Aiken         |
| Ralph Anthony Baxter-----    | Charleston | Carroll Baldwin Little-----         | Spartanburg   |
| Lewis Lake Bowen-----        | Easley     | Alfred Parker McPeters-----         | Clemson       |
| Cecil Oba Browning-----      | Greenwood  | Charles Francis Middleton, III----- | Charleston    |
| Leonidas McTyre Calhoun----- | Barnwell   | John Marlen Neuffer-----            | Walterboro    |
| James Edward Cobb-----       | Catechee   | Donald Gruber Price-----            | Walterboro    |
| Fred Funston Finley-----     | McCormick  | George Manning Taylor-----          | Nichols       |
| Farrar O'Neal Griggs-----    | Darlington | James Bernard Wall-----             | Spartanburg   |
| Thomas Andrew Hendricks----- | Easley     |                                     |               |

*Weaving and Designing*

|                                    |          |                             |                 |
|------------------------------------|----------|-----------------------------|-----------------|
| Bascom Dwight Cain, Jr.-----       | Eastover | Charles Coleman Frye-----   | Avondale, N. C. |
| William Holmes Cutts-----          | Florence | Arthur Welling LaGrone----- | Edgefield       |
| Arthur Charles Patterson, Jr.----- |          | Rock Hill                   |                 |

## SCHOOL OF VOCATIONAL EDUCATION

*Bachelor of Science Degree**Vocational Agricultural Education*

|                             |           |                              |                    |
|-----------------------------|-----------|------------------------------|--------------------|
| Manuel Padgett Black-----   | Ward      | Frank Warren Herlong-----    | Johnston           |
| Lee Smoot Cloaninger-----   | Lykesland | Robert Hancock Herlong-----  | Johnston           |
| Henry Edward Cochran-----   | Donalds   | Henry Zed Jones, Jr.-----    | Dacusville         |
| Jesse Dean Cooley-----      | Chesnee   | John Calvin King-----        | Loris              |
| William Bruce Ezell-----    | Chesnee   | Covert Salters McCallum----- | Lugoff             |
| Ray Newton Gambrell-----    | Seneca    | Brooks Ervin Piercy-----     | Union Mills, N. C. |
| Woodrow Hampton Gibson----- | Six Mile  | James Eliot Ponder-----      | Dacusville         |
| *James Rhett Hendricks----- | Pickens   | Aaron Joshua Smith-----      | Bethune            |
| LeRoy Moore Stanton-----    |           | McColl                       |                    |

*Education*

|                                    |         |                          |          |
|------------------------------------|---------|--------------------------|----------|
| Gilbeart Hooper Collings, Jr.----- | Clemson | *James Wallace Rion----- | Columbia |
|------------------------------------|---------|--------------------------|----------|

*Industrial Education*

|                               |           |                              |            |
|-------------------------------|-----------|------------------------------|------------|
| Joseph Harris Cannon-----     | Rock Hill | Everette Bennett Mauney----- | Greenville |
| Herbert Austin Wood, Jr.----- |           | Seneca                       |            |

*Textile Industrial Education*

|                             |           |
|-----------------------------|-----------|
| Robert Millard McAdams----- | Townville |
|-----------------------------|-----------|

## PROFESSIONAL DEGREE IN CIVIL ENGINEERING

|                               |          |
|-------------------------------|----------|
| James Stanley Williamson----- | Columbia |
|-------------------------------|----------|

\*With Honor.

## FORTY-FIRST COMMENCEMENT, JUNE 1937

*Baccalaureate Sermon*

THE REVEREND WYATT AIKEN SMART

*Professor of Biblical Theology*

Emory University, Georgia

*Address to Graduating Class*

THE HONORABLE ASBURY FRANCIS LEVER

*Director of Public Relations, Farm Credit Administration*

Columbia, South Carolina

## BACHELOR OF SCIENCE DEGREES CONFERRED

FEBRUARY 2, 1937

*Agriculture—Economics Major*

William Buck Norwood.....Marion

*Agriculture—Animal Husbandry Major*

Taylor McDuffie Folger.....Pickens

*Agricultural Engineering*

Patrick Henry Crowther.....Anderson

Martin Chapin McKenzie.....Easley

*Electrical Engineering*

Havelock Eaves Dowling.....Bamberg

*General Science*

Charles Betts Reid.....Richburg

*Textile Chemistry*

Kenneth Stoddard Campbell.....Fairhaven, Mass.

*Textile Engineering*

Frederick Eugene Hutto.....Bamberg

Gordon Beverly Moore Walker.....Greenville

William Blackwell Croxton.....Kershaw

*Vocational Agricultural Education*

Robert Wilson Bailey.....Wellford

Hiott Cothran Edens.....Pickens

Walter Blythe McKinney.....Easley

*Industrial Education*

Charles David Bates.....Marietta

## DEGREES CONFERRED, SEPTEMBER 7, 1937

*Bachelor of Science**Agriculture—Agricultural Economics Major*

Victor Reginal Fleming-----Laurens

*Architecture*

Adonis Norman Avinger, Jr.-----Orangeburg

*General Science*

Cloudy Gray Conner, Jr.-----Lamar

Harold Ellison Massingale-----Greenville

Henry Oswald Strohecker, Jr.-----Charleston

Robert Hamilton Martin-----Easley

*Textile Engineering*

Charlie Frank Goodman-----Rock Hill

Cecil Arthur Willis-----Clemson

*Vocational Agricultural Education*

Thomas Arrington Stallworth-----St. Matthews

*Industrial Education*

William Bryce-----Florence

John Edward Riley-----Charleston

Jack Ranson Windell-----Rock Hill

*Textile Industrial Education*

James Theodore Rhoden-----Edgefield

*Bachelor of Electrical Engineering*

Oscar Laval Johnson-----Newberry

Benjamin Franklin Thomas-----Fairfax

*Bachelor of Mechanical Engineering*

John Wesley Lewis-----Laurens

Thomas Green Watkins-----Pendleton

## \*DOCTOR OF SCIENCE DEGREES CONFERRED

## ON THE OCCASION OF

## THE DEDICATION OF LONG AGRICULTURAL HALL

May 12, 1937

HENRY D. BARKER, B.S., M.S., Ph.D., Senior Pathologist, Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C.

HENRY WALTER BARRE, B.S., M.A., Principal Pathologist, Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C.

\*Honorary Degrees Conferred for Distinguished Service to Agriculture.



- HUGH HAMMOND BENNETT, B.S., LL.D., Chief, Soil Conservation Service, United States Department of Agriculture, Washington, D. C.
- CLOIDE EVERETT BREHM, B.S., Director, Agricultural Extension Work, University of Tennessee, Knoxville, Tennessee
- HARRY LOWRANCE BROWN, B.S.A., Assistant Secretary, United States Department of Agriculture, Washington, D. C.
- THOMAS STEPHEN BUIE, B.S., M.S., Ph.D., Regional Conservator, Soil Conservation Service, United States Department of Agriculture, Spartanburg, South Carolina
- PAUL WILBER CHAPMAN, B.S.A., B.S.Ed., M.S.A., Dean, College of Agriculture, The University of Georgia, Athens, Georgia
- CULLY ALTON COBB, B.S., Director, Southern Division, Agricultural Adjustment Administration, United States Department of Agriculture, Washington, D. C.
- DAVID ROBERT COKER, Sc.D., LL.D., President, Coker's Pedigreed Seed Company, Hartsville, South Carolina
- THOMAS POE COOPER, B.S., Dean, College of Agriculture, Director, Agricultural Experiment Station and Extension Service, The University of Kentucky, Lexington, Kentucky
- CHESTER CHARLES DAVIS, A.B., LL.D., Member, Board of Governors, Federal Reserve System, Washington, D. C.
- IVY WILLIAM DUGGAN, B.S., M.Sc., Assistant Director, Southern Division, Agricultural Adjustment Administration, United States Department of Agriculture, Washington, D. C.
- JAMES ALLEN EVANS, Administrative Assistant, Extension Division, College of Agriculture, The University of Georgia, Athens, Georgia
- GEORGE ELBERT FREEMAN, B.S., M.S., Head, Division of Vocational Education, State Supervisor of Vocational Agriculture, Nashville, Tennessee
- MARION JACOB FUNCHESS, B.S., M.S., Dean, School of Agriculture, Director, Alabama Experiment Station, Alabama Polytechnic Institute, Auburn, Alabama
- WIGHTMAN WELLS GARNER, A.B., Ph.D., Principal Physiologist, Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C.
- EDWARD WALTER GARRIS, B.S., M.A., Ph.D., Professor of Agricultural Education, College of Education and College of Agriculture, The University of Florida, Gainesville, Florida
- WILSON GEE, B.S., M.A., Ph.D., Professor of Rural Social Economics, Director of the Institute for Research in the Social Sciences, The University of Virginia, Charlottesville, Virginia
- DAN T. GRAY, A.B., M.S., Dean, College of Agriculture, Director, Agricultural Experiment Station and Extension Service, The University of Arkansas, Fayetteville, Arkansas
- HARDRADA HAROLD HUME, B.S.A., M.S., Assistant Dean, Research, College of Agriculture, Assistant Director, Research, Agricultural Experiment Station, The University of Florida, Gainesville, Florida

- JOHN REDD HUTCHESON, B.S., M.S., Director, Extension Work in Agriculture and Home Economics, Virginia Polytechnic Institute, Blacksburg, Virginia
- THOMAS BARKSDALE HUTCHESON, B.S., M.S., M.S.A., Agronomist, Agricultural Experiment Station, Head, Agronomy Department, Virginia Polytechnic Institute, Blacksburg, Virginia
- JAMES TERTIUS JARDINE, B.S.C.E., D.Sc., Director of Research, Chief, Office of Experiment Stations, United States Department of Agriculture, Washington, D. C.
- GEORGE WANNAMAKER KEITT, B.S., M.S., Ph.D., Professor of Plant Pathology, The University of Wisconsin, Madison, Wisconsin
- ASBURY FRANCIS LEVER, A.B., LL.B., LL.D., Director of Public Relations, Farm Credit Administration, Columbia, South Carolina
- WALTER HOGE MACINTIRE, B.S., M.S., Ph.D., Head, Department of Chemistry, The University of Tennessee Agricultural Experiment Station, Knoxville, Tennessee
- JAMES SPENCER MCHARGUE, B.S., M.S., Ph.D., Head, Department of Chemistry, Kentucky Agricultural Experiment Station, The University of Kentucky, Lexington, Kentucky
- WILLIAM DEWEY MOORE, B.S., M.S., Ph.D., Pathologist, United States Department of Agriculture, Tifton, Georgia
- JOHN HARCOURT ALEXANDER MORGAN, B.S., LL.D., Director, Tennessee Valley Authority, Knoxville, Tennessee
- LAKE ROSSE NEEL, B.S.A., Editor and Writer, Southern Agriculturist, Vice-Director, Middle Tennessee Experiment Station, Columbia, Tennessee
- WILMON NEWELL, B.S., M.S., D.Sc., Dean, College of Agriculture, Director, Agricultural Experiment Stations and Extension Service, The University of Florida, Gainesville, Florida
- MARK LOVEL NICHOLS, B.S., M.S., Principal Engineer, Soil Conservation Service, United States Department of Agriculture, Washington, D. C.
- ARTHUR WHEATLEY PALMER, A.B., Agricultural Commissioner, Foreign Service Division, Bureau of Agricultural Economics, United States Department of Agriculture, London, England
- CLARENCE POE, Litt.D., LL.D., President and Editor, The Progressive Farmer and Southern Ruralist, Raleigh, North Carolina
- ROBERT FRANKLIN POOLE, B.S., M.S., Ph.D., Professor of Plant Pathology, Plant Pathologist, Chairman, Graduate Work Committee, North Carolina State College of Agriculture and Engineering, Raleigh, North Carolina
- TANDY ROY REID, B.S., M.S., Regional Director, Resettlement Administration, United States Department of Agriculture, Little Rock, Arkansas
- ROE EUGENE REMINGTON, B.A., M.A., Ph.D., Professor of Nutrition, Medical College of the State of South Carolina, Charleston, South Carolina

IRA OBED SCHAUB, B.S., Dean and Director of Agricultural Extension, North Carolina State College of Agriculture and Engineering, Raleigh, North Carolina

HENRY PERKINS STUCKEY, B.S., Director and Horticulturist, Georgia Experiment Station, Experiment, Georgia

ROBERT WILLIAM WEBB, B.S., M.A., Ph.D., Principal Cotton Technologist, Bureau of Agricultural Economics, Division of Cotton Marketing, United States Department of Agriculture, Washington, D. C.

GEORGE JAMES WILDS, JR., A.B., M.A., Director Plant Breeding, Coker's Pedigreed Seed Company, Hartsville, South Carolina

RHETT YOUMANS WINTERS, B.S., M.S., Ph.D., Director, Agricultural Experiment Station, North Carolina State College of Agriculture and Engineering, Raleigh, North Carolina

HOWARD HENRY ZIMMERLEY, B.S., Ph.D., Director, Virginia Truck Experiment Station, Norfolk, Virginia

#### FARMERS' CERTIFICATES OF MERIT AWARDED, MAY 12, 1937

|                       |               |                         |            |
|-----------------------|---------------|-------------------------|------------|
| J. W. Abrams-----     | Newberry      | L. D. Holmes-----       | Johnston   |
| W. M. Agnew-----      | Donalds       | M. R. Jeter-----        | Santuck    |
| T. C. Atkinson-----   | Mullins       | St. J. A. Lawton-----   | Charleston |
| W. W. Beaty-----      | Iva           | R. B. McDonald-----     | Blackstock |
| V. S. Bickley-----    | Lexington     | R. J. Mayes, Jr.-----   | Mayesville |
| W. R. Bowen-----      | Troy          | E. M. Meares-----       | Nichols    |
| T. L. Breeden-----    | Bennettsville | Monson Morris-----      | Aiken      |
| J. B. Britton-----    | Sumter        | W. T. Rowell-----       | Trio       |
| J. C. Covington-----  | Clio          | Cleveland Sanders*----- | Ritter     |
| E. L. Culler-----     | Orangeburg    | B. W. Segars-----       | Oswego     |
| F. A. Dodgens-----    | Pickens       | G. A. Sherrill-----     | Cheraw     |
| T. G. Fry-----        | Blythewood    | Paul Smith-----         | Madison    |
| N. P. Gettys-----     | Lugoff        | Wade Stackhouse-----    | Dillon     |
| B. M. Gramling-----   | Gramling      | N. W. Trask-----        | Burton     |
| J. B. Guess, Jr.----- | Denmark       | W. L. White-----        | McCormick  |
| L. I. Guion-----      | Lugoff        | B. F. Williamson-----   | Darlington |
| J. L. Hawkins-----    | Greer         | L. M. Wooten-----       | Chester    |

#### SCROLLS OF HONOR AWARDED, MAY 12, 1937

(Clemson Men Engaged in Farming)

|                     |               |                       |               |
|---------------------|---------------|-----------------------|---------------|
| C. B. Abell-----    | Lowrys        | E. M. Caughman-----   | Lexington     |
| W. W. Altman-----   | Moncks Corner | A. D. Chamblee-----   | Anderson      |
| P. B. Anderson----- | Effingham     | W. E. Chapman-----    | Sandy Springs |
| F. W. Atkinson----- | Augusta, Ga.  | J. R. Connor-----     | Eutawville    |
| G. E. Bamberg-----  | Bamberg       | J. E. Cottingham----- | Dillon        |
| P. A. Baxley-----   | Blackville    | J. M. Craig-----      | Pendleton     |
| E. B. Baxter-----   | Garnett       | J. W. Duckworth-----  | Anderson      |
| Ralph Bell-----     | Hartsville    | P. R. Earle-----      | Starr         |
| W. J. Berry-----    | Wellford      | P. L. Elvington-----  | Nichols       |
| A. V. Bethea-----   | Dillon        | T. O. Epps-----       | Kingstree     |
| J. R. Blair-----    | Sharon        | S. W. Foster-----     | Fort Mill     |
| B. D. Boykin-----   | Boykin        | P. A. George-----     | Latta         |
| W. E. Britt-----    | McCormick     | E. P. Glasscock-----  | Catawba       |
| S. D. Cathcart----- | Winnsboro     | W. C. Graham-----     | Pamplico      |

\*Deceased.

|                 |               |                 |               |
|-----------------|---------------|-----------------|---------------|
| W. A. Hambright | Kings Creek   | J. W. McMakin   | Wellford      |
| R. A. Harris    | Gray Court    | A. P. Martin    | Westminster   |
| J. F. Hawkins   | Newberry      | H. W. Marvin    | White Hall    |
| B. L. Hendricks | Dacusville    | S. W. Mims      | Harleyville   |
| J. H. Hendricks | Pickens       | J. M. Moss      | Cameron       |
| H. M. Holley    | Aiken         | H. R. Pollitzer | Beaufort      |
| J. E. Jenkins   | Yonges Island | S. A. Rogers    | Callison      |
| L. R. Kay       | Easley        | T. L. Ross      | Society Hill  |
| H. M. Kinsey    | Walterboro    | G. D. Sanders   | Fairfax       |
| R. S. Kirk      | Eutawville    | C. D. Smith     | Spartanburg   |
| W. E. Knight    | Pageland      | C. T. Smith     | Newberry      |
| B. T. Lanham    | Edgefield     | W. C. Smith     | Williston     |
| L. M. Lightsey  | Brunson       | J. J. Snow      | Henry         |
| O. P. Lightsey  | Brunson       | R. K. Thackston | Greenville    |
| W. H. Long      | Blairs        | L. P. Thomas    | Dacusville    |
| W. M. Lunn      | Florence      | D. L. Tindal    | Pinewood      |
| J. N. McBride   | Savannah, Ga. | T. T. Traywick  | Cope          |
| Frank McCluney  | Gaffney       | V. L. Warner    | Greenwood     |
| F. O. McCown    | Anderson      | L. O. Watson    | Florence      |
| J. B. McCrorey  | Gresham       | R. M. Watson    | Ridge Spring  |
| G. C. McDermid  | Charleston    | L. E. Wheeler   | Saluda        |
| S. A. McGee     | Starr         | W. T. White     | Norfolk, Va.  |
| C. E. McLeod    | Seabrook      | E. E. Wyndham   | Moncks Corner |

DEDICATION OF LONG AGRICULTURAL HALL  
MAY 12, 1937

---

PRESIDENT E. W. SIKES, Presiding

---

INVOCATION

The Reverend John Lewis  
Pastor, Methodist Church, Central, South Carolina

PRESENTATION OF THE KEYS OF THE BUILDING  
Business Manager to the Chairman of the Board of Trustees

ADDRESS

The Honorable Chester C. Davis  
Board of Governors, Federal Reserve System, Washington, D. C.

CONFERRING OF DEGREES

AWARDING OF CERTIFICATES OF MERIT  
AND SCROLLS OF HONOR

RECOGNITION OF OFFICIALS AND DELEGATES

SONG, "Alma Mater"  
Audience



## LIST OF STUDENTS, FIRST SEMESTER, 1937-1938

The names are arranged in alphabetical order and following the names are symbols indicating classes and courses. The numerals preceding the course symbols refer to classes, viz.: 1, Freshman; 2, Sophomore; 3, Junior; 4, Senior. (Classified as of first semester. See page 57.) A-Agriculture (abbreviation indicates major course for seniors): Agr-Agronomy; AH-Animal Husbandry; D-Dairy; Ag Ec-Agricultural Economics; Ag Engr-Agricultural Engineering; For-Forestry; Hort-Horticulture; Ent-Entomology; GS-General Science; Ar-Architecture; C-Chemistry; E-Engineering (all engineering freshmen and electrical and mechanical sophomores); CE-Civil Engineering; Ch Engr-Chemical Engineering; EE-Electrical Engineering; ME-Mechanical Engineering; T-Textile; TC-Textile Chemistry; WD-Weaving and Designing; V Ag Ed-Vocational Agricultural Education; Ed-Education (Teaching of Science); I Ed-Industrial Education; TIE-Textile Industrial Education; S-Special (not candidate for degree). New students admitted in September, 1937, are indicated by a dagger (†).

| Name and Course              | Residence          |
|------------------------------|--------------------|
| Abee, R. B. (1 E)†           | Spartanburg        |
| Abell, S. S. (1 A)           | Lowrys             |
| Abercrombie, P. R. (4 TC)    | Gray Court         |
| Able, T. A. (2 CE)           | Abbeville          |
| Abrams, E. P. (3 CE)         | Newberry           |
| Abrams, W. H. (3 V Ag Ed)    | Leo                |
| Acker, H. L. (2 GS)          | Anderson           |
| Ackerman, M. W. (2 E)        | Cottageville       |
| Ackerman, W. M. (2 TC)       | St. George         |
| Ackis, H. S. (1 T)†          | Jacksonville, Fla. |
| Adams, D. G. (2 E)           | Florence           |
| Adams, G. W. (1 E)†          | Batesburg          |
| Adams, H. D. (3 T)           | Clio               |
| Adams, J. W. (4 Ch Engr)     | Charleston         |
| Adams, P. H. (2 1 Ed)        | Gadsden            |
| Addis, D. R. (1 T)†          | Walhalla           |
| Agnew, J. C. P. (1 Ag Engr)† | Starr              |
| Agnew, R. E. (2 E)           | Donalds            |
| Aichele, F. J. (4 Hort)      | Charleston         |
| Alexander, H. F. (1 E)†      | Columbia           |
| Alexander, J. B. (2 V Ag Ed) | Central            |
| All, F. E. (4 GS)            | Allendale          |
| Allen, E. S. (2 A)†          | Rembert            |
| Allen, J. H. (1 E)†          | Spartanburg        |
| Almeida, J. L. (2 E)         | Charleston         |
| Altman, D. S. (2 GS)         | Mullins            |
| Ambrose, J. R. (4 CE)        | Plantersville      |
| Anderson, B. W. (1 GS)†      | Edgefield          |
| Anderson, C. E. (2 WD)       | Seneca             |
| Anderson, G. D. (2 E)        | Georgetown         |
| Anderson, G. J. (2 E)        | Williston          |
| Anderson, J. F. (3 1 Ed)     | Edgefield          |
| Anderson, J. W. (4 T)        | Greenwood          |
| Anderson, R. F. (3 Ag Ec)    | Ninety Six         |
| Anderson, R. M. (1 E)†       | Chester            |
| Anderson, W. D. (2 T)        | Gastonia, N. C.    |
| Anthony, F. H. (1 E)         | Pickens            |
| Appley, P. L. (1 E)†         | Highlands, N. C.   |
| Arant, T. D. (1 C)†          | Fort Motte         |
| Arbery, E. F. (1 GS)†        | Greenwich, Conn.   |
| Ardis, T. B. (3 V Ag Ed)     | Dalzell            |
| Ariail, R. L. (2 A)          | Willington         |
| Armstrong, A. A. (1 T)†      | Charleston         |
| Arnold, F. T. (3 GS)         | Spartanburg        |
| Arnold, H. H. (1 V Ag Ed)†   | Woodruff           |
| Arrington, L. R. (2 A)       | Ninety Six         |
| Ashford, J. F. (1 E)         | Georgetown         |
| Atchley, H. E. (1 T)†        | Starr              |

| Name and Course               | Residence     |
|-------------------------------|---------------|
| Atwell, W. J. (3 EE)          | Chester       |
| Auerhamer, J. G. (4 T)        | Edgefield     |
| Aull, C. M. (3 Ag Ec)         | Pomaria       |
| Austell, J. R. (1 E)†         | Greenville    |
| Austin, J. M. (2 EE)          | Honea Path    |
| Avent, H. E. (2 Ar)           | Bennettsville |
| Avent, R. G. (2 T)            | Greenville    |
| Avinger, H. C. (3 T)          | Orangeburg    |
| Awtrey, W. E. (1 E)†          | New Brookland |
| Babb, J. M. (1 Ag Engr)†      | Gray Court    |
| Babb, W. A. (1 GS)†           | Princeton     |
| Bagnal, F. W. (4 GS)          | Sumter        |
| Bagnal, H. T. (2 GS)          | Sumter        |
| Bailey, C. H. (1 T)†          | Allendale     |
| Bailey, J. R. (3 ME)          | Florence      |
| Bainbridge, T. R. (3 C)       | Savannah, Ga. |
| Baker, A. H. (1 T)            | Clover        |
| Baker, J. M. (2 V Ag Ed)      | Hemingway     |
| Baker, W. E. (1 E)†           | Charleston    |
| Baldwin, J. K. (1 E)†         | Lake City     |
| Baldwin, M. C. L. (2 TC)      | Rock Hill     |
| Balfour, F. H. (1 GS)†        | Orlando, Fla. |
| Ballard, V. A. (4 T)          | Arcadia       |
| Ballenger, C. D. (3 Hort)     | Greer         |
| Ballenger, F. G. (3 1 Ed)     | Clemson       |
| Ballenger, P. C. (2 V Ag Ed)  | Westminster   |
| Ballentine, C. E. (4 GS)      | Anderson      |
| Ballentine, C. F. (3 1 Ed)    | Prosperity    |
| Ballentine, R. W. (2 V Ag Ed) | Prosperity    |
| Banister, J. A. (1 A)†        | Honea Path    |
| Banister, R. A. (3 1 Ed)      | Greenwood     |
| Banks, R. H. (1 T)†           | Plum Branch   |
| Barber, C. G. (3 TIE)         | Woodruff      |
| Barnes, J. (4 GS)             | Brunson       |
| Barnwell, B. S. (2 T)         | Abbeville     |
| Barrineau, T. W. (2 V Ag Ed)  | Lake City     |
| Barron, J. I. (1 E)†          | York          |
| Barton, L. M. (2 E)           | Taylors       |
| Baskin, J. S. (3 Ag Ec)       | Bishopville   |
| Baskin, T. C. (1 A)†          | Bishopville   |
| Baskin, T. P. (3 ME)          | Anderson      |
| Bateman, F. F. (2 E)          | Columbia      |
| Bates, R. O. (1 E)†           | Moncks Corner |
| Batson, M. L. (1 E)†          | Greenville    |
| Baxley, H. W. (1 A)†          | Mullins       |
| Beach, H. L. (3 V Ag Ed)      | Walterboro    |
| Beasley, B. A. (3 V Ag Ed)    | Norway        |

| Name and Course                 | Residence             | Name and Course                   | Residence             |
|---------------------------------|-----------------------|-----------------------------------|-----------------------|
| Beason, H. H. (2 V Ag Ed)-----  | Woodruff              | Bonnette, G. H. (3 GS)†-----      | Ebenezer              |
| Beaudrot, C. L. (1 A)†-----     | Greenwood             | Bookhart, H. U. (3 V Ag Ed)-----  | Orangeburg            |
| Beaudrot, C. R. (1 E)†-----     | Greenwood             | Booth, J. W. (2 GS)†-----         | St. Petersburg, Fla.  |
| Beaudrot, J. L. (1 E)†-----     | Greenwood             | Boozer, G. W. (4 Agr)-----        | Leesville             |
| Beckett, T. A. (1 A)†-----      | Johns Island          | Boozer, Harold W. (3 T)-----      | Columbia              |
| Beeson, T. M. (2 A)-----        | Mullins               | Boozer, Hugh W. (1 V Ag Ed)†----- | Leesville             |
| Belger, W. J. (1 T)†-----       | Hemingway             | Boselli, T. J. (3 ME)-----        | Spartanburg           |
| Belk, M. (1 Ag Engr)†-----      | Darlington            | Boswell, R. C. (1 T)†-----        | Travelers Rest        |
| Bell, D. B. (1 E)†-----         | Greenwood             | Botts, E. O. (3 EE)-----          | Abbeville             |
| Bell, F. L. (4 GS)-----         | Lancaster             | Boulware, L. M. (4 T)-----        | Newberry              |
| Bell, H. B. (1 E)†-----         | Charleston            | Bouton, W. I. (2 C)-----          | Ware Shoals           |
| Bell, R. N. (1 A)†-----         | Harleyville           | Bowen, J. S. (1 T)†-----          | McCormick             |
| Bell, T. E. (2 AH)-----         | Lydia                 | Bowen, W. L. (1 T)†-----          | McRae, Ga.            |
| Bellamy, G. G. (1 V Ag Ed)----- | Loris                 | Boyd, S. J. (3 C)-----            | Greenville            |
| Belue, H. P. (1 E)†-----        | Blacksburg            | Boykin, R. W. (1 T)†-----         | Lamar                 |
| Benfield, J. K. (1 T)†-----     | York                  | Boyle, W. B. (3 ME)-----          | Sumter                |
| Benjamin, G. F. (1 E)†-----     | Augusta, Ga.          | Boylston, W. L. (1 Ag Engr)†----- | Charleston            |
| Bennett, E. F. (1 A)†-----      | Smoaks                | Boys, R. W. (3 T)-----            | Tuxedo, N. C.         |
| Bennett, W. (1 V Ag Ed)†-----   | Orangeburg            | Bozard, L. S. (2 V Ag Ed)-----    | Cameron               |
| Benson, F. D. (3 T)†-----       | Fairforest            | Bracey, J. H. (3 Ch Engr)-----    | Columbia              |
| Benton, D. A. (1 A)†-----       | Timmons ville         | Brackett, W. E. (3 Ar)-----       | Hendersonville, N. C. |
| Berry, H. S. (1 E)†-----        | Greer                 | Bradbury, D. W. (2 E)-----        | Seneca                |
| Berry, M. M. (2 GS)-----        | Greenville            | Bradford, H. (1 T)†-----          | Berryton, Ga.         |
| Berry, R. J. (1 Ag Engr)†-----  | Smoaks                | Bradford, S. R. (1 E)-----        | Greenwood             |
| Berry, R. P. (2 E)-----         | Easley                | Bradham, W. W. (1 E)†-----        | Camden                |
| Bessent, C. F. (1 E)†-----      | Little River          | Bradley, C. F. (1 T)†-----        | Charleston            |
| Bessent, T. A. (1 E)†-----      | Little River          | Bradley, W. F. (1 T)†-----        | Charleston            |
| Bessinger, F. B. (4 GS)-----    | Olar                  | Brady, H. G. (2 E)-----           | Columbia              |
| Bethea, A. V. (4 Ag Ec)-----    | Dillon                | Brady, W. P. (1 E)†-----          | Columbia              |
| Bethea, A. W. (4 Ag Ec)-----    | Dillon                | Brailsford, J. F. (3 Hort)-----   | Orangeburg            |
| Bethea, C. J. (1 Ag Engr)†----- | McColl                | Braithwaite, R. (1 E)†-----       | Savannah, Ga.         |
| Bethea, P. W. (4 T)-----        | Greenville            | Brannon, C. J. (2 E)-----         | Piedmont              |
| Bethea, T. C. (1 Ag Engr)†----- | Dillon                | Brannon, J. T. (3 Agr)-----       | Cassatt               |
| Bethea, W. E. (1 E)†-----       | Latta                 | Brannon, T. L. (1 V Ag Ed)†-----  | Cassatt               |
| Bethea, W. H. (2 E)-----        | Marion                | Bratton, R. M. (3 V Ag Ed)†-----  | Gaffney               |
| Bethune, J. E. (1 T)†-----      | Russellville          | Brazell, D. E. (1 V Ag Ed)†-----  | Blaney                |
| Bettis, J. R. (2 ME)-----       | Greenville            | Breazeale, W. C. (S)-----         | Clemson               |
| Bickley, C. E. (1 T)†-----      | Pendleton             | Breland, W. D. D. (1 GS)†-----    | Ruffin                |
| Bickley, D. W. (2 A)-----       | Lexington             | Brewer, H. (2 V Ag Ed)-----       | Russellville          |
| Bird, E. R. (1 T)-----          | West Asheville, N. C. | Brewster, J. S. (4 Ch Engr)-----  | Cedartown, Ga.        |
| Bischoff, R. J. (1 C)†-----     | Summerville           | Brice, A. M. (3 ME)-----          | Clemson               |
| Black, C. V. (2 V Ag Ed)-----   | Ward                  | Brice, T. W. (2 T)-----           | Woodward              |
| Black, T. H. (1 Ar)†-----       | Columbia              | Bridge, R. W. (2 V Ag Ed)-----    | Round                 |
| Blackmon, C. R. (1 E)†-----     | Timmons ville         | Bridges, M. L. (2 V Ag Ed)-----   | Blacksburg            |
| Blackmon, R. W. (2 CE)-----     | Timmons ville         | Brigman, C. C. (3 TIE)-----       | Lancaster             |
| Blackwell, G. E. (2 Hort)-----  | Inman                 | Bringle, R. L. (1 E)†-----        | Parris Island         |
| Blair, C. H. (2 T)-----         | Clemson               | Brockman, W. D. (1 GS)†-----      | Greer                 |
| Blair, H. C. (1 Ar)-----        | Sevierville, Tenn.    | Brodie, G. A. (3 Ag Ec)-----      | Wagener               |
| Blair, J. O. (1 E)†-----        | Clemson               | Brooks, A. L. (1 E)†-----         | Timmons ville         |
| Blake, I. C. (2 GS)-----        | Calhoun Falls         | Brown, E. R. (2 V Ag Ed)-----     | Bishopville           |
| Blakely, J. R. (3 V Ag Ed)----- | Ora                   | Brown, H. S. (2 Ag Engr)-----     | Kingstree             |
| Blakely, L. J. (3 V Ag Ed)----- | Ora                   | Brown, R. F. (2 GS)-----          | Westminster           |
| Blakeney, R. H. (2 T)-----      | Lancaster             | Brown, R. H. (1 GS)†-----         | Charleston            |
| Blakeslee, D. H. (1 E)†-----    | Newark, N. J.         | Broyles, J. N. (1 A)†-----        | Townville             |
| Blanchett, M. P. (1 T)-----     | Abbeville             | Brunson, J. F. (1 GS)†-----       | Brunson               |
| Blanton, H. P. (2 A)-----       | Gaffney               | Bryan, C. B. (2 CE)-----          | Johns Island          |
| Blaylock, C. S. (1 E)†-----     | Greenwood             | Bryan, W. C. (2 All)-----         | Fairfax               |
| Blease, E. S. (1 V Ag Ed)†----- | Saluda                | Bryant, C. K. (2 E)†-----         | Gastonia, N. C.       |
| Blessing, J. E. (1 A)†-----     | Greenville            | Bryant, F. D. (1 E)†-----         | Marion                |
| Boatwright, H. (2 GS)-----      | Seneca                | Bryant, G. C. (1 Ag Engr)†-----   | Dovesville            |
| Boatwright, J. S. (1 T)†-----   | Ridge Spring          | Bryant, L. (2 V Ag Ed)-----       | Greenville            |
| Boatwright, L. T. (4 EE)-----   | Ridge Spring          | Bryant, R. H. (2 Ag Engr)-----    | Florence              |
| Bobo, F. E. (4 Ch Engr)-----    | Gray Court            | Bryant, W. L. (3 AH)-----         | Mullins               |
| Bobo, F. G. (3 GS)-----         | Greenville            | Bryce, F. J. (3 GS)-----          | Florence              |
| Bodie, K. J. (1 V Ag Ed)†-----  | Ward                  | Buchanan, A. M. (2 E)†-----       | McColl                |
| Boesch, J. C. (4 Ch Engr)-----  | Charlotte, N. C.      | Buchanan, H. L. (1 T)†-----       | Anderson              |
| Boland, T. S. (1 E)†-----       | Blackville            | Bull, B. R. (1 V Ag Ed)†-----     | Cameron               |
| Bolding, P. M. (1 T)†-----      | Pickens               | Bull, C. B. (4 Ag Engr)-----      | Cameron               |
| Bolen, J. L. (1 E)†-----        | Williston             | Bull, L. H. (2 V Ag Ed)-----      | Cameron               |
| Boliver, W. C. (1 TC)-----      | Orangeburg            | Bullington, W. A. (2 T)-----      | Spartanburg           |
| Bolt, J. W. (4 T)-----          | Laurens               | Bundy, W. H. (2 V Ag Ed)-----     | Clio                  |
| Bolt, W. H. (1 E)†-----         | Seneca                | Burdette, E. K. (2 E)-----        | Charleston            |
| Bone, M. B. (3 I Ed)-----       | Lowndesville          | Burgess, A. F. (1 Ag Engr)†-----  | Belton                |

| Name and Course              | Residence         | Name and Course                | Residence             |
|------------------------------|-------------------|--------------------------------|-----------------------|
| Burgess, E. C. (1 GS)†       | Kingstree         | Chuharski, J. (1 I Ed)†        | Greenwich, Conn.      |
| Burley, B. B. (1 GS)†        | Clemson           | Citron, L. A. (3 EE)           | Columbia              |
| Burney, J. H. (2 C)          | Orangeburg        | Clark, L. G. (1 T)†            | Walhalla              |
| Burns, P. J. (2 T)           | Greenville        | Clary, D. M. (1 I)†            | Gaffney               |
| Burress, D. E. (3 EE & ME)   | Pendleton         | Clawson, C. H. (1 T)†          | Rock Hill             |
| Burriss, T. M. (2 I Ed)      | Anderson          | Clayton, D. B. (4 Ar)          | Shelton               |
| Burton, J. R. (1 V Ag Ed)    | Ninety Six        | Clayton, E. E. (3 V Ag Ed)     | Pickens               |
| Bush, S. M. (3 T)†           | Colquitt, Ga.     | Clegg, C. R. (S)†              | Liberty               |
| Bussey, W. W. (1 T)†         | Greenville        | Clemmons, J. R. (3 GS)         | Marion                |
| Butler, E. C. (1 E)†         | Yonges Island     | Cleveland, E. P. (1 T)         | Marietta              |
| Byars, C. P. (3 Ag Ec)       | Windsor           | Cline, W. E. (1 E)†            | Newton, N. C.         |
| Byrd, H. D. (4 CE)           | Clinton           | Coakley, F. H. (1 GS)†         | Anderson              |
| Byrd, I. J. (1 T)†           | Chester           | Coakley, G. E. (1 GS)†         | Anderson              |
| Byrd, R. S. (3 Ar)           | Andrews           | Cobb, C. D. (2 T)              | Belton                |
| Byrd, W. C. (1 E)†           | Clinton           | Cochran, R. P. (2 GS)          | Charleston            |
|                              |                   | Cofer, W. O. (3 V Ag Ed)       | Wagener               |
| Cain, W. T. (2 Hort)         | Eastover          | Coggin, P. B. (1 A)†           | Blackville            |
| Caldwell, T. H. (1 GS)†      | Ruffin            | Coggins, A. E. (1 V Ag Ed)     | Inman                 |
| Calhoun, F. H. H. (3 CE)     | Clemson           | Coggins, E. B. (1 V Ag Ed)†    | Laurens               |
| Calhoun, R. A. (1 E)†        | Ringgold, Ga.     | Cohen, E. (2 TC)               | Newark, N. J.         |
| Cameron, A. N. (1 E)†        | Anderson          | Coker, G. R. (3 GS)            | Turbeville            |
| Campbell, R. H. (1 E)†       | Columbia          | Coker, T. H. (1 T)†            | Hartsville            |
| Campbell, S. E. (4 GS)       | Clemson           | Cole, J. M. (3 GS)             | Florence              |
| Campbell, W. F. (2 E)        | Anderson          | Coleman, A. J. (2 GS)          | Aiken                 |
| Cannon, C. D. (1 E)†         | Hemingway         | Coleman, C. L. (2 Ar)          | Wilmington, Del.      |
| Cannon, J. E. (1 T)†         | Hartsville        | Coleman, D. B. (2 V Ag Ed)     | Saluda                |
| Cannon, W. H. (4 I Ed)       | Rock Hill         | Coleman, E. W. (3 GS)          | Rocky Mount, N. C.    |
| Cantey, B. O. (3 GS)         | Sumter            | Coleman, R. W. (3 GS)          | Hyman                 |
| Cantrell, M. C. (1 V Ag Ed)† | Spartanburg       | Coleman, W. D. (3 AH)          | Bamberg               |
| Capplemann, F. J. D. (2 E)   | Parris Island     | Coleman, W. J. (3 EE)          | Aiken                 |
| Capper, W. H. (1 T)†         | Bedford, Penn.    | Coleman, W. S. (3 V Ag Ed)     | Anderson              |
| Carlisle, W. A. (3 Ar)       | Spartanburg       | Collins, W. D. (2 I Ed)        | Inman                 |
| Carlson, P. (3 Ar)           | Brooklyn, N. Y.   | Colvin, R. E. (1 E)†           | Darlington            |
| Carmichael, A. C. (1 E)†     | Scranton          | Commander, G. C. (3 CE)        | Florence              |
| Carnes, E. E. (4 Hort)       | Hartsville        | Compton, G. W. (1 I Ed)†       | Union                 |
| Carnes, J. E. (1 GS)†        | Lancaster         | Connell, N. G. (1 V Ag Ed)†    | Camden                |
| Carrigan, E. W. (2 GS)       | Society Hill      | Cook, H. L. (2 E)              | Owings                |
| Carson, C. R. (2 C)          | Anderson          | Cook, J. C. (3 ME)             | Sumter                |
| Carson, R. G. (3 WD)         | Orangeburg        | Cook, O. K. (2 V Ag Ed)        | Prosperity            |
| Carter, C. L. (1 E)†         | Salters           | Cooler, C. H. (4 V Ag Ed)      | Ridgeland             |
| Carter, J. D. (1 E)†         | Leo               | Cooler, E. W. (1 C)†           | Sheldon               |
| Carter, L. O. (3 GS)         | Varnville         | Cooley, R. L. (2 V Ag Ed)      | Chesnee               |
| Casale, R. S. (1 E)†         | New York, N. Y.   | Cooper, H. M. (3 Ch Engr)      | Charleston            |
| Cash, D. H. (S)              | Chesnee           | Copeland, H. C. (1 T)†         | Newport News, Va.     |
| Cason, L. L. (2 C)           | Williamston       | Copeland, J. F. (3 GS)         | Timmons ville         |
| Cason, W. S. (3 CE)          | Garnett           | Copeland, N. (1 E)†            | Timmons ville         |
| Castles, J. F. (1 E)†        | Winnboro          | Copeland, O. L. (3 Agr)        | Ehrhardt              |
| Castles, W. H. (1 E)†        | Winnboro          | Copley, W. M. (2 E)            | North Matewan, W. Va. |
| Cathcart, J. W. (3 GS)       | Winnboro          | Corbett, L. W. (2 GS)†         | Bishopville           |
| Cathcart, T. M. (2 GS)       | Hartsville        | Corn, L. E. (2 E)              | Woodruff              |
| Caughman, R. B. (1 Ag Engr)† | Columbia          | Correll, H. M. (1 E)†          | York                  |
| Caughman, R. H. (2 A)        | Leesville         | Cosgrove, H. H. (3 T)          | Clemson               |
| Causey, H. G. (2 GS)         | Fairfax           | Cottingham, J. E. (1 Ag Engr)† | Dillon                |
| Cauthen, R. H. (2 T)         | College Place     | Couch, J. H. (1 T)†            | Easley                |
| Champion, T. M. (2 T)        | Union             | Courie, A. G. (4 GS)           | Marion                |
| Chandler, J. F. (3 CE)       | Seneca            | Covington, H. M. (3 Hort)      | Bennettsville         |
| Chandler, J. M. (1 E)†       | Anderson          | Covington, J. C. (3 GS)        | Columbia              |
| Chandler, W. O. (2 CE)       | Piedmont          | Coward, W. A. (1 A)†           | Aiken                 |
| Chapman, A. D. (3 V Ag Ed)   | Liberty           | Cox, A. Z. (2 T)†              | Hardeeville           |
| Chapman, A. H. (3 Ar)        | Spartanburg       | Cox, B. D. (1 V Ag Ed)†        | Hemingway             |
| Chapman, J. K. (4 EE)        | Greenville        | Cox, H. C. (1 E)†              | Hemingway             |
| Chapman, R. G. (1 A)†        | Greenville        | Cox, I. C. (1 E)†              | Russellville          |
| Chapman, W. K. (1 E)†        | Anderson          | Cox, J. E. (1 E)†              | Conway                |
| Charles, J. (1 T)†           | Piedmont          | Cox, W. T. (3 GS)              | Belton                |
| Chastain, D. R. (4 V Ag Ed)  | Pickens           | Coyle, B. M. (1 E)†            | Columbia              |
| Chastain, W. D. (1 V Ag Ed)† | Pickens           | Cranford, J. C. (1 T)          | Kings Mountain, N. C. |
| Cheatham, F. C. (2 T)†       | Toccoa, Ga.       | Cranford, M. H. (2 WD)         | Chester               |
| Cheves, W. R. (4 CE)         | Clemson           | Craven, F. M. (2 GS)           | Florence              |
| Childress, B. F. (4 V Ag Ed) | Six Mile          | Crawford, H. O. (1 A)†         | Calhoun               |
| Chitty, B. C. (1 GS)†        | Miami, Fla.       | Crawford, J. O. (S)†           | Columbia              |
| Chitty, H. M. (1 A)†         | Gainesville, Fla. | Crawford, N. D. (3 GS)         | Clemson               |
| Chovan, P. B. (3 Ed)         | Pickens           | Crayton, T. W. (1 GS)†         | Anderson              |
| Christopher, J. D. (1 T)†    | Greenville        | Crenshaw, W. J. (4 WD)         | Great Falls           |



| Name and Course               | Residence           | Name and Course              | Residence          |
|-------------------------------|---------------------|------------------------------|--------------------|
| Crisp, V. V. (1 T)†           | Greenville          | Dobson, C. D. (2 E)†         | Greenville         |
| Crocker, T. J. (1 E)†         | Charleston          | Dobson, R. M. (3 Hort)       | Greer              |
| Crook, H. J. (1 V Ag Ed)†     | Cameron             | Donald, J. A. (1 Ar)†        | Duncan             |
| Crook, M. (3 GS)              | Spartanburg         | Dorn, R. W. (4 GS)           | St. Matthews       |
| Crosby, D. D. (3 CE)          | Chester             | Douglas, S. Z. (1 E)†        | Deland, Fla.       |
| Crosby, R. A. (2 E)           | Ruffin              | Doux, J. T. (3 TC)           | Charlotte, N. C.   |
| Crosby, R. D. (3 AH)          | Miley               | Downey, R. E. (4 GS)         | Clemson            |
| Crouch, A. C. (4 ME)          | Clemson             | Dozier, E. P. T. (1 A)†      | Marion             |
| Crouch, H. J. (1 E)†          | Elko                | Dreher, J. B. (2 A)†         | Columbia           |
| Crouch, H. M. (3 A)           | Saluda              | Dreisbach, L. D. (1 E)†      | Columbia           |
| Croxson, E. F. (2 CE)         | Charlotte, N. C.    | Drew, P. N. (3 EE)           | Columbia           |
| Crumbley, J. C. (2 Ch Engr)   | Charleston          | Driver, A. H. (1 E)†         | Aiken              |
| Culbreath, J. E. (1 V Ag Ed)† | Johnston            | DuBose, E. E. (1 T)†         | Oswego             |
| Cullen, D. M. (4 GS)          | Denmark             | Dudley, A. C. (1 E)†         | Mullins            |
| Culler, J. C. (1 A)†          | Wolfton             | Dukes, J. L. (1 E)†          | St. George         |
| Culpepper, J. M. (4 EE)       | Charleston          | Dukes, J. M. (3 Ag Engr)     | Sedalia            |
| Culton, R. S. (1 E)†          | Corozal, Canal Zone | Dukes, O. S. (3 Ar)          | Aiken              |
| Culvern, F. E. (3 T)          | Kershaw             | Dukes, R. C. (1 E)†          | Orangeburg         |
| Cunningham, C. D. (1 E)†      | Liberty Hill        | Dukes, W. W. (4 EE)          | Orangeburg         |
| Cunningham, W. C. (4 C)       | Williston           | Duncan, D. D. (1 T)†         | Blacksburg         |
| Curry, W. C. (4 Hort)         | Gray Court          | Duncan, G. A. (4 T)          | Whitmire           |
| Dantzer, P. H. (2 V Ag Ed)†   | Parler              | Dunham, C. F. (1 E)†         | Anderson           |
| Darby, R. T. (3 I Ed)         | Beaufort            | Dunham, E. W. (1 T)†         | Durham, N. C.      |
| Darby, W. E. (1 T)†           | Pelzer              | Dunlap, F. A. (3 GS)         | Rock Hill          |
| Darby, W. M. (1 E)†           | Beaufort            | Dunlap, G. M. (1 T)†         | Tucapau            |
| Darrin, S. W. (1 T)†          | Spartanburg         | Dunn, L. E. (2 V Ag Ed)†     | Zebulon, Ga.       |
| Darwin, D. P. (2 E)           | Gafney              | Dunn, M. F. (1 T)†           | Chester            |
| Davis, A. F. (4 T)            | Greer               | Dunn, W. E. (4 T)            | Sylacauga, Ala.    |
| Davis, J. (4 ME)              | Clemson             | DuPre, J. P. (1 GS)†         | Columbia           |
| Davis, J. N. (1 T)†           | Ware Shoals         | DuPre, W. M. (4 D)           | Walhalla           |
| Davis, J. W. (4 EE)           | Charleston          | DuRant, H. E. (1 GS)         | Sumter             |
| Davis, N. R. (3 Ag Ec)        | Norway              | DuRant, H. S. (1 E)†         | Savannah, Ga.      |
| Davis, R. D. (2 E)            | Central             | Durban, F. W. (3 GS)         | Aiken              |
| Davis, R. L. (1 E)†           | Orangeburg          | Durban, G. A. (4 GS)         | Aiken              |
| Davis, S. E. (1 E)†           | Brunswick, Ga.      | Duvall, J. E. (3 ME)         | Bennettsville      |
| Davis, T. F. (2 GS)†          | Orlando, Fla.       | Duvall, W. E. (3 Agr)        | Cheraw             |
| Davis, W. C. (2 TC)           | Greenville          | Dwight, K. B. (4 GS)         | Wedgfield          |
| Davis, W. F. (4 T)            | Arcadia             | Eaddy, C. M. (1 V Ag Ed)†    | Hemingway          |
| Davis, W. O. (1 A)†           | Centenary           | Eaddy, L. L. (1 E)†          | Hemingway          |
| DeHart, J. E. (1 E)†          | Bryson City, N. C.  | Eadon, J. R. (2 T)           | Manning            |
| Deitz, J. F. (1 GS)†          | Columbia            | Earle, J. B. (2 V Ag Ed)     | Central            |
| Dellastatious, A. E. (1 E)†   | Starr               | Earle, S. T. (1 Ar)†         | Greenville         |
| Dellinger, W. F. (1 E)†       | Spartanburg         | Early, W. F. (1 Ar)†         | Florence           |
| DeLoach, A. J. (3 V Ag Ed)    | Scotia              | Easterlin, W. W. (1 V Ag Ed) | Walterboro         |
| DeLoach, L. A. (3 I Ed)       | Clemson             | Eatmon, T. W. (4 GS)         | Moncks Corner      |
| DeMai, N. (2 GS)†             | Rocky Mount, N. C.  | Edgerton, N. B. (3 T)†       | Orangeburg         |
| Demosthenes, H. J. (1 Ar)†    | Beaufort            | Edmonds, J. L. (1 T)†        | Fallston, N. C.    |
| Denny, E. R. (1 E)†           | Columbia            | Edwards, G. T. (1 E)†        | Rowesville         |
| Denny, H. S. (2 E)            | Bishopville         | Edwards, J. A. (1 T)†        | Fountain Inn       |
| Denny, R. Maynard (4 ME)      | Bishopville         | Edwards, J. H. (4 T)         | Batesburg          |
| Denny, R. Milton (4 TC)       | Graniteville        | Edwards, J. L. (1 E)†        | Florence           |
| Dent, H. N. (1 T)†            | St. Matthews        | Edwards, M. J. (1 E)†        | Orangeburg         |
| Derrick, F. B. (3 GS)         | Clayton, Ga.        | Edwards, M. T. (1 Ar)†       | Beaufort           |
| Derrick, W. G. (1 V Ag Ed)†   | Johnston            | Ehrhardt, J. S. (2 E)        | Charleston         |
| DesChamps, W. G. (3 Ag Ec)    | Bishopville         | Eidson, W. L. (2 A)          | Ward               |
| DesPortes, J. A. (1 T)†       | Fort Mill           | Eliis, J. (1 Ed)             | Little River       |
| Dewey, C. A. (3 ME)           | Central             | Ellis, W. N. (1 GS)†         | Greenwood          |
| DeWitt, M. R. (4 ME)          | Darlington          | Ellison, C. E. (1 E)†        | Greer              |
| Dial, R. L. (1 T)†            | Charleston          | Ellison, T. W. (2 T)         | Columbia           |
| Dickerson, G. L. (1 T)†       | Spartanburg         | Elmore, F. B. (2 Ch Engr)    | Hardeeville        |
| Dickert, G. (1 V Ag Ed)†      | Chester             | Elmore, H. H. (1 V Ag Ed)†   | Mooresboro, N. C.  |
| Dicks, N. R. (1 T)†           | Barnwell            | Elphick, C. C. (1 E)†        | Greenville         |
| Dickson, A. (1 T)†            | Anderson            | Embody, C. F. (2 TC)         | Summit Hill, Penn. |
| Dickson, S. J. (2 T)†         | Anderson            | Epps, D. E. (1 Ag Engr)†     | Latta              |
| Disher, J. H. (4 EE)          | Charleston          | Epps, J. W. (1 Ar)†          | Kingsree           |
| Diver, W. T. (2 CE)           | Anderson            | Epting, S. W. (2 V Ag Ed)    | Newberry           |
| Dixon, J. E. (3 GS)           | Columbia            | Erwin, P. N. (1 Ar)†         | Albany, Ga.        |
| Dixon, J. S. (2 Ag Engr)      | Bishopville         | Es skew, W. T. (1 T)†        | Anderson           |
| Dobbins, F. G. (1 A)          | Townville           | Etheredge, H. M. (1 A)†      | Springfield        |
| Dobbins, W. L. (3 Ed)         | Townville           | Evans, A. M. (3 T)           | Abbeville          |
| Dobbs, J. R. (2 Ch Engr)      | Cleveland, Ohio     | Evans, C. B. (4 Ag Engr)     | Abbeville          |
| Dobson, C. B. (1 A)†          | Greer               |                              |                    |

| Name and Course                | Residence             |
|--------------------------------|-----------------------|
| Evans, D. W. (3 V Ag Ed)       | Elloree               |
| Evans, J. D. (2 GS)            | Anderson              |
| Evans, J. Hayward (1 V Ag Ed)† | Six Mile              |
| Evans, J. Heriot (2 CE)        | Bennettsville         |
| Evans, L. R. (2 E)             | Travelers Rest        |
| Evans, T. H. (4 V Ag Ed)       | Clemson               |
| Eve, P. (1 A)†                 | Burton                |
| Fairey, E. J. (1 E)†           | Rowesville            |
| Fairey, P. W. (1 GS)†          | St. Matthews          |
| Falls, M. E. (3 Ar)†           | Asheville, N. C.      |
| Faris, H. M. (4 EE)            | Clover                |
| Farmer, J. G. (2 E)            | Anderson              |
| Farmer, R. J. (4 ME & EE)      | Charleston            |
| Farmer, R. S. (1 E)†           | Charleston            |
| Farnum, C. O. (2 E)            | Orangeburg            |
| Federline, J. R. (3 T)         | Belton                |
| Feinstein, H. (3 EE)           | Clemson               |
| Felder, I. B. (1 E)†           | Georgetown            |
| Fellers, L. O. (2 T)†          | Columbia              |
| Fellers, R. C. (2 T)           | Prosperity            |
| Fender, W. C. (2 E)            | Branchville           |
| Fenstemacher, E. R. (2 A)      | Greeneville, Tenn.    |
| Ferguson, H. E. (2 E)          | Florence              |
| Ferguson, J. H. (2 A)          | Toccoa, Ga.           |
| Ferguson, S. A. (4 EE)         | Eastover              |
| Ferguson, T. D. (2 T)          | Abbeville             |
| Ferree, R. J. (3 Hort)         | Campobello            |
| Ferris, L. R. (1 V Ag Ed)†     | Orangeburg            |
| Ficklin, M. T. (1 T)†          | Greenwood             |
| Fickling, R. B. (3 Agr)        | Blackville            |
| Finklea, L. B. (3 AH)          | Hyman                 |
| Flathmann, E. R. (2 E)         | Charleston            |
| Fleeman, B. H. (1 C)†          | Greenville            |
| Fleetwood, H. G. (1 T)         | Clemson               |
| Fleming, W. A. (3 Ar)          | Columbia              |
| Fletcher, A. G. (4 Ag Ec)      | McColl                |
| Fletcher, B. C. (3 T)          | Greenville            |
| Fletcher, G. L. (1 A)†         | McColl                |
| Fletcher, N. (2 A)             | McColl                |
| Floyd, E. E. (2 CE)            | Lake City             |
| Floyd, G. W. (1 A)†            | Conway                |
| Floyd, S. H. (1 E)†            | Greenville            |
| Floyd, W. F. (2 V Ag Ed)       | Taylors               |
| Floyd, W. M. (1 V Ag Ed)†      | Tillman               |
| Fogle, H. L. (2 TC)            | Orangeburg            |
| Fogle, L. G. (2 V Ag Ed)       | Orangeburg            |
| Folger, A. J. (4 T)            | Pickens               |
| Ford, P. G. (3 CE)             | Clover                |
| Ford, Z. T. (1 A)†             | Nichols               |
| Fore, W. C. (4 EE)             | Latta                 |
| Forester, R. C. (2 T)          | Sumter                |
| Forrester, H. S. (2 Ar)        | Greenville            |
| Forsythe, R. G. (2 Ch Engr)    | Hendersonville, N. C. |
| Fort, S. L. (1 TIE)†           | Blacksburg            |
| Foster, H. B. (1 T)†           | Greenville            |
| Foster, H. E. (3 T)            | Pendleton             |
| Foster, I. J. (2 A)            | Chesnee               |
| Foster, J. B. (1 Ar)†          | Union                 |
| Foster, J. W. P. (1 E)†        | Summerville           |
| Foster, W. T. (2 A)            | Chesnee               |
| Foster, W. W. (2 T)            | Greenville            |
| Fowler, C. H. (1 E)†           | Greenville            |
| Fox, R. H. (2 A)               | Landrum               |
| Frank, M. (1 T)†               | Philadelphia, Penn.   |
| Frazier, J. B. (3 T)           | Blairs                |
| Frazier, J. R. (2 CE)          | Blairs                |
| Frazier, W. H. (3 E)           | Dothan, Ala.          |
| Freeman, E. A. (1 E)†          | Anderson              |
| Freeman, P. N. (1 E)†          | Clemson               |
| Fuller, E. H. (4 TC)           | Columbia              |
| Fulmer, H. P. (1 A)†           | Chapin                |

| Name and Course              | Residence        |
|------------------------------|------------------|
| Fulmer, R. B. (2 T)          | Leesville        |
| Fulmer, T. D. (3 TC)         | Saluda           |
| Funk, W. S. (4 V Ag Ed)      | St. Stephen      |
| Furtick, O. K. (2 V Ag Ed)   | Springfield      |
| Fuseler, H. W. (2 E)         | Charleston       |
| Gage, G. W. (3 T)            | Anderson         |
| Gaillard, W. M. (2 E)        | Eutawville       |
| Gaillard, W. S. (2 A)        | Eutawville       |
| Galloway, W. A. (3 CE)       | Gadsden, Ala.    |
| Galvanek, E. J. (4 ME)       | Carteret, N. J.  |
| Gambrell, D. H. (1 A)†       | Seneca           |
| Gandy, A. P. (3 Ag Ec)       | Hartsville       |
| Gandy, J. E. (4 Agr)         | Anderson         |
| Gantt, J. M. (4 V Ag Ed)     | Jefferson        |
| Gantt, P. A. (3 V Ag Ed)     | Jefferson        |
| Gardner, E. G. (2 Ar)        | Lancaster        |
| Gardner, L. E. (2 CE)        | Chesterfield     |
| Garick, L. T. (3 C)          | Hopkins          |
| Garner, A. R. (3 EE)         | Timmons ville    |
| Garner, J. A. (1 E)†         | Hartsville       |
| Garrett, J. S. (1 T)†        | Norris           |
| Garrett, P. T. (2 E)         | Fountain Inn     |
| Garrett, T. M. (S)†          | Norris           |
| Garrett, W. A. (2 T)         | Greenville       |
| Garrison, J. S. (2 E)        | Seneca           |
| Garwood, S. H. (1 A)†        | Sumter           |
| Gary, E. (1 V Ag Ed)†        | Simpsonville     |
| Gaskins, J. L. (3 V Ag Ed)   | Timmons ville    |
| Gaston, C. C. (3 T)†         | Charleston       |
| Gaston, J. D. (1 E)†         | Anderson         |
| Gates, J. H. (1 GS)†         | Anderson         |
| Gates, W. F. (3 T)           | Anderson         |
| Gay, M. P. (2 V Ag Ed)       | Kershaw          |
| Geer, R. M. (3 Ar)           | Clemson          |
| Geisberg, H. (4 T)           | Anderson         |
| Gentry, W. T. (1 V Ag Ed)    | Starr            |
| Gianpaolo, N. J. (1 Ed)†     | Derby, Conn.     |
| Gibert, J. W. (3 Hort)       | Rodman           |
| Gibson, C. F. (4 V Ag Ed)    | Chester          |
| Gibson, H. C. (3 V Ag Ed)    | Greenville       |
| Gifford, R. S. (1 E)†        | Estill           |
| Gilchrist, H. A. (3 GS)      | Edgefield        |
| Gill, W. T. (4 EE)           | Charlotte, N. C. |
| Gillespie, R. M. (2 CE)      | Seneca           |
| Gilliam, L. G. (3 CE)        | Union            |
| Ginn, W. N. (1 E)†           | Varnville        |
| Glenn, J. P. (1 E)†          | Anderson         |
| Glenn, W. E. (1 E)†          | Cheraw           |
| Glover, J. B. (1 T)†         | Atlanta, Ga.     |
| Glymph, B. H. (2 V Ag Ed)    | Fair Play        |
| Godfrey, J. B. (1 A)†        | Gaffney          |
| Goins, C. A. (3 GS)          | Fitzgerald, Ga.  |
| Golding, E. V. (2 E)         | Waterloo         |
| Goodson, T. E. (3 Ar)†       | Hartsville       |
| Goodwin, P. E. (2 E)         | Millville, N. J. |
| Gore, J. P. (2 E)            | Greenwood        |
| Gore, N. V. (1 T)†           | Greenwood        |
| Gormley, C. J. (3 TC)†       | Cranston, R. I.  |
| Graham, A. D. (2 TC)         | Rock Hill        |
| Graham, C. E. (1 A)†         | Scranton         |
| Graham, H. (1 V Ag Ed)†      | Loris            |
| Graham, J. P. (1 A)          | Lake City        |
| Graham, L. V. (4 ME)         | Luray            |
| Gramling, F. W. (1 V Ag Ed)† | Orangeburg       |
| Gramling, R. M. (2 V Ag Ed)  | Orangeburg       |
| Gramling, W. H. (2 V Ag Ed)  | Orangeburg       |
| Grant, T. F. (2 WD)          | Chester          |
| Graham, J. R. (2 V Ag Ed)    | Dillon           |
| Graves, C. C. (1 GS)†        | Pageland         |
| Graves, J. T. (4 AH)         | Ruby             |
| Gray, D. J. (1 GS)†          | Ware Shoals      |
| Gray, F. F. (2 E)            | Greenville       |



| Name and Course                   | Residence        | Name and Course                    | Residence            |
|-----------------------------------|------------------|------------------------------------|----------------------|
| Gray, J. F. (2 A)-----            | Chester          | Harper, R. M. (2 Ag Engr)-----     | Darlington           |
| Gray, Z. (3 T)-----               | Gray Court       | Harper, S. D. (1 E)†-----          | Florence             |
| Grayson, L. A. (1 E)-----         | Hardeeville      | Harper, S. M. (1 E)†-----          | Andrews              |
| Green, F. D. (1 T)†-----          | Rock Hill        | Harris, F. V. (4 GS)-----          | Anderson             |
| Green, G. B. (2 E)-----           | Columbia         | Harris, W. W. (3 T)-----           | Greenville           |
| Green, H. C. (4 EE)-----          | Florence         | Harrison, B. S. (2 GS)†-----       | Rocky Mount, N. C.   |
| Green, R. M. (1 A)†-----          | Salem            | Harrison, E. L. (1 E)†-----        | Georgetown           |
| Greene, C. E. (1 GS)†-----        | Anderson         | Harrison, J. E. (1 GS)†-----       | Columbia             |
| Greene, C. L. (1 E)†-----         | Williston        | Harrison, J. H. (3 ME)-----        | Troy                 |
| Greene, W. A. (2 T)-----          | Orangeburg       | Harrison, J. R. (3 CE)-----        | Georgetown           |
| Greer, J. S. (1 I Ed)†-----       | Union            | Harry, W. B. (4 T)-----            | Chester              |
| Gregg, H. R. (1 A)†-----          | Florence         | Hart, B. B. (2 TC)-----            | Anderson             |
| Gregorie, E. B. (1 C)†-----       | Charleston       | Harter, J. R. (2 A)-----           | Fairfax              |
| Gregorie, W. D. (4 Agr)-----      | Yonges Island    | Hartley, J. C. (1 E)†-----         | Greenwood            |
| Gregory, J. F. (1 C)†-----        | Pauline          | Hawkins, A. (2 E)-----             | Gaffney              |
| Gregory, J. L. (1 T)†-----        | Lockhart         | Hawkins, P. C. (2 E)-----          | Greenville           |
| Gresham, T. B. (4 GS)-----        | Lyman            | Hawkins, T. G. (1 V Ag Ed)†-----   | Travelers Rest       |
| Griffin, E. W. (3 C)-----         | Belton           | Hawkins, T. P. (2 Ar)-----         | Greenville           |
| Griffin, J. F. (1 A)†-----        | Honea Path       | Hawkins, W. S. (1 GS)†-----        | Union                |
| Griffin, L. G. (2 E)-----         | Anderson         | Hayes, C. B. (2 TC)-----           | Lyman                |
| Grigsby, J. A. (1 V Ag Ed)†-----  | Saluda           | Hayes, E. D. (4 Ag Engr)-----      | Little Rock          |
| Grimball, I. H. (2 T)-----        | Greenville       | Hayes, J. P. (3 V Ag Ed)-----      | Nichols              |
| Grimball, T. P. (2 CE)-----       | Johns Island     | Heape, J. M. (2 T)-----            | Charleston           |
| Groce, H. W. (3 ME)-----          | Wellford         | Hearon, R. L. (2 Ag Engr)-----     | Bishopville          |
| Groce, L. A. (1 Ar)†-----         | Lyman            | Heatwole, T. H. (3 TC)-----        | Sumter               |
| Guerard, E. P. (3 Ar)-----        | Columbia         | Helms, C. L. (4 I Ed)-----         | Bethune              |
| Guerry, F. P. (3 V Ag Ed)-----    | Kingstree        | Hemphill, R. A. (2 GS)-----        | Trenton              |
| Guess, C. P. (4 Ag Engr)-----     | Denmark          | Hempstead, R. L. (1 E)†-----       | Abbeville            |
| Guess, J. B. (1 A)†-----          | Denmark          | Henderson, J. C. (1 E)†-----       | Greenville           |
| Guess, J. H. (3 GS)-----          | Denmark          | Henderson, J. R. (1 E)†-----       | Verdery              |
| Gullick, R. M. (1 T)†-----        | Greenville       | Henderson, R. P. (1 A)†-----       | Ninety Six           |
| Gunter, C. G. (2 GS)-----         | Greenville       | Henderson, W. N. (1 Ag Engr)†----- | Ninety Six           |
| Guy, R. A. (2 TC)-----            | Chester          | Henderson, W. T. (3 T)-----        | Greenville           |
| Guyton, E. D. (4 GS)-----         | Marion           | Hendricks, B. L. (3 AH)-----       | Dacusville           |
| Guyton, G. G. (2 TC)-----         | Sumter           | Hendricks, G. H. (2 T)-----        | Easley               |
| Guyton, R. A. (1 V Ag Ed)†-----   | Marion           | Hendricks, S. G. (1 GS)†-----      | Easley               |
| Hackett, C. B. (2 T)-----         | Spartanburg      | Hendrix, C. E. (3 Ag Engr)-----    | Greenville           |
| Hair, L. M. (3 ME)-----           | Charleston       | Henriquez, G. D. (1 A)†-----       | Habana, Cuba         |
| Hale, H. R. (1 E)†-----           | Kingsport, Tenn. | Henry, G. C. (1 T)†-----           | Spartanburg          |
| Hall, C. C. (1 T)†-----           | Greenwood        | Henry, J. C. (4 D)-----            | Gaston               |
| Hall, F. M. (4 V Ag Ed)-----      | Iva              | Henry, R. E. S. (1 E)†-----        | Clemson              |
| Hall, H. P. (2 E)-----            | Clemson          | Henry, R. L. (3 ME)-----           | Simpsonville         |
| Hall, L. W. (2 V Ag Ed)-----      | Iva              | Hinson, S. (2 Ar)-----             | Spartanburg          |
| Hall, R. T. (1 T)†-----           | Cassatt          | Heriot, J. D. (2 Ag Engr)-----     | Dalzell              |
| Hall, T. E. (4 C)-----            | Dillon           | Herlong, H. K. (3 Ag Engr)-----    | Spartanburg          |
| Hall, W. A. (1 T)†-----           | Charleston       | Herlong, J. B. (2 V Ag Ed)†*-----  | Johnston             |
| Hallman, W. E. (1 Ar)†-----       | Aiken            | Herndon, F. M. (1 T)†-----         | Anderson             |
| Hambright, M. T. (2 V Ag Ed)----- | Grover, N. C.    | Herndon, J. T. (1 Ag Engr)†-----   | Ehrhardt             |
| Hamer, J. R. (1 A)†-----          | Clio             | Herrington, C. L. (1 A)†-----      | Waynesboro, Ga.      |
| Hamilton, F. M. (4 Hort)-----     | Spartanburg      | Hester, B. F. (2 T)-----           | Columbia             |
| Hamilton, G. R. (1 A)†-----       | Anderson         | Hester, J. J. (3 CE)-----          | Troy                 |
| Hamilton, J. E. (1 T)†-----       | Anderson         | Hester, R. (3 Ch Engr)-----        | St. George           |
| Hammond, J. H. G. (2 T)-----      | Greenwood        | Hetrick, C. (1 V Ag Ed)-----       | Walhalla             |
| Hammond, R. R. (1 T)†-----        | Columbia         | Heyward, B. R. (2 Ar)-----         | Charleston           |
| Hance, G. W. (2 V Ag Ed)-----     | Heath Springs    | Heyward, R. C. (3 T)-----          | Fort Mill            |
| Hancock, D. W. (1 V Ag Ed)†-----  | Ruby             | Heyward, T. C. (S)†-----           | Charlotte, N. C.     |
| Hancock, W. F. (4 V Ag Ed)-----   | Ruby             | Hickerson, R. A. (1 T)†-----       | Morris Plains, N. J. |
| Hanna, H. H. (2 A)-----           | Blacksburg       | Hickey, W. E. (4 ME)-----          | Florence             |
| Hanna, L. G. (2 V Ag Ed)-----     | Hemingway        | Hicks, L. G. (2 T)†-----           | Greenville           |
| Hanna, T. R. (4 V Ag Ed)-----     | Blacksburg       | Hicks, W. L. (2 E)†-----           | Spartanburg          |
| Hanvey, G. C. (2 E)-----          | Abbeville        | Hiers, J. M. (1 V Ag Ed)†-----     | Smoaks               |
| Hardee, J. C. (2 V Ag Ed)-----    | Loris            | Hiers, M. D. (3 EE)-----           | Columbia             |
| Harley, J. H. (1 E)†-----         | St. George       | Hill, D. N. (1 T)†-----            | Abbeville            |
| Harley, T. R. (2 C)-----          | Hartsville       | Hill, H. B. (1 E)†-----            | Lake City            |
| Harling, R. E. (2 ME)-----        | Inman            | Hills, W. A. (4 AH)-----           | Johns Island         |
| Harlee, R. L. (4 T)-----          | Florence         | Hinnant, C. R. (1 E)†-----         | Ridgeway             |
| Harmon, C. E. (4 V Ag Ed)-----    | Gilbert          | Hinnant, F. K. (1 E)†-----         | Ridgeway             |
| Harmon, H. L. (2 E)†-----         | Spartanburg      | Hiott, E. D. (2 EE)-----           | St. Matthews         |
| Harmon, K. S. (3 V Ag Ed)-----    | Gaffney          | Hite, C. W. (1 T)†-----            | Bennettsville        |
| Harmon, M. N. (2 V Ag Ed)-----    | Lexington        | Hodges, G. H. (3 EE)-----          | Union                |
| Harper, J. J. (2 E)-----          | Seneca           | Hodges, R. F. (2 E)-----           | Union                |
|                                   |                  | Hoefer, T. M. (4 EE)-----          | Columbia             |
|                                   |                  | Hoffman, J. C. (4 Hort)-----       | Blythewood           |

| Name and Course                   | Residence         |
|-----------------------------------|-------------------|
| Hoffman, S. O. (4 EE)-----        | McBee             |
| Hoke, A. D. (1 E)†-----           | Rock Hill         |
| Holbrook, N. W. (4 ME)-----       | Cornelia, Ga.     |
| Holcombe, R. O. (2 T)-----        | Fountain Inn      |
| Holland, O. (1 V Ag Ed)†-----     | Bethune           |
| Holley, E. B. (1 E)†-----         | Aiken             |
| Holley, F. L. (1 A)†-----         | Aiken             |
| Hollingsworth, C. K. (1 E)†-----  | Troy              |
| Holman, G. (4 AH)-----            | North Augusta     |
| Holmes, F. S. (1 E)†-----         | Denmark           |
| Holroyd, R. E. (1 Ar)†-----       | Anderson          |
| Holtzclaw, A. B. (1 T)†-----      | Piedmont          |
| Holtzendorff, P. B. (1 GS)†-----  | Clemson           |
| Honeycutt, R. E. (1 E)†-----      | Kannapolis, N. C. |
| Hopkins, S. (1 V Ag Ed)†-----     | Westminster       |
| Horne, W. L. (2 Ar)-----          | Greenwood         |
| Horner, L. C. (3 ME)-----         | Chester           |
| Horton, E. V. (4 EE)-----         | Belton            |
| Horton, F. H. (1 GS)†-----        | Columbia          |
| Horton, J. I. (1 GS)†-----        | Columbia          |
| Horton, L. S. (2 V Ag Ed)-----    | Pageland          |
| Horton, R. E. (1 A)†-----         | Pageland          |
| Horton, W. F. (2 T)-----          | Belton            |
| Houck, J. L. (2 E)-----           | Cordova           |
| Houck, S. H. (3 V Ag Ed)-----     | Cameron           |
| Hough, J. S. (1 A)-----           | Edgefield         |
| Howard, J. W. (1 T)†-----         | Greenville        |
| Howard, T. G. (2 GS)-----         | Lyman             |
| Howey, G. E. (1 GS)†-----         | Lancaster         |
| Howie, J. B. (2 A)-----           | Anderson          |
| Hubbard, F. M. (2 CE)-----        | Marion            |
| Hubbard, R. C. (2 V Ag Ed)-----   | Seneca            |
| Huchting, J. F. (4 CE)-----       | Charleston        |
| Huckaby, J. P. (2 V Ag Ed)-----   | Enoree            |
| Huckaby, W. (1 T)†-----           | Duncan            |
| Hucks, C. (1 E)†-----             | Aynor             |
| Hudgens, J. (1 V Ag Ed)†-----     | Greenville        |
| Hudgens, R. L. (3 I Ed)-----      | Spartanburg       |
| Hudgin, D. E. (4 C)-----          | Greenville        |
| Hudson, W. M. (3 Ar)-----         | Spartanburg       |
| Huff, J. R. (4 Agr)-----          | Piedmont          |
| Huff, R. B. (2 GS)-----           | Charleston        |
| Huff, W. D. (4 GS)-----           | Hartsville        |
| Huggins, R. B. (2 A)-----         | Johnsonville      |
| Hughes, D. G. (3 I Ed)-----       | Union             |
| Hughes, F. (3 GS)-----            | North Charleston  |
| Hughey, C. S. (1 C)†-----         | Greer             |
| Hughey, J. D. (2 V Ag Ed)-----    | Greer             |
| Huguenin, E. P. (1 V Ag Ed)†----- | Ridgeland         |
| Hunley, C. L. (1 V Ag Ed)†-----   | Chesterfield      |
| Hunt, B. D. (2 I Ed)-----         | Westminster       |
| Hunt, F. M. (2 T)-----            | Liberty           |
| Hunt, J. M. (3 Ar)-----           | Anderson          |
| Hunt, S. C. (2 E)-----            | Greenville        |
| Hunter, E. D. (1 T)†-----         | Edisto Island     |
| Hunter, J. C. (2 GS)-----         | Liberty           |
| Hunter, R. V. (1 A)†-----         | Adams Run         |
| Hunter, W. (1 E)†-----            | Spartanburg       |
| Hurst, F. M. (1 E)-----           | Anderson          |
| Huskey, J. B. (2 Ar)†-----        | Spartanburg       |
| Hutchinson, D. M. (3 ME)-----     | Columbia          |
| Hutto, C. L. (1 E)†-----          | Orangeburg        |
| Inabinet, W. B. (1 E)†-----       | Bishopville       |
| Inabinet, F. H. (1 A)†-----       | Wolfton           |
| Inderfurth, K. H. (4 T)-----      | Clemson           |
| Irby, G. S. (2 C)-----            | Woodruff          |
| Irick, E. F. (2 T)-----           | Elloree           |
| Irwin, W. P. (3 T)-----           | Spartanburg       |
| Ivey, E. M. (3 T)-----            | LaGrange, Ga.     |
| Ivey, J. D. (2 E)-----            | LaGrange, Ga.     |

Jackson, C. C. (1 V Ag Ed)†-----Camden  
 Jackson, E. C. (1 V Ag Ed)†-----Starr

| Name and Course                 | Residence          |
|---------------------------------|--------------------|
| Jackson, R. F. (3 Ag Ec)-----   | Sumter             |
| Jackson, R. V. (4 GS)-----      | Wedgfield          |
| Jackson, S. F. (1 T)†-----      | Jacksonville, Fla. |
| Jackson, W. L. (2 V Ag Ed)----- | Camden             |
| Jackson, W. O. (2 V Ag Ed)----- | Starr              |
| Jaekel, H. E. (1 E)†-----       | Beaufort           |
| James, G. H. (2 T)-----         | Greenwood          |
| Jaudon, W. M. (3 AH)-----       | Tillman            |
| Jay, J. E. (2 T)-----           | Greenwood          |
| Jeffcoat, B. D. (2 E)-----      | Florence           |
| Jenkins, M. I. (1 A)†-----      | Yonges Island      |
| Jenkins, R. M. (4 EE)-----      | Mayesville         |
| Jenkins, S. T. (1 T)†-----      | Lando              |
| Jepson, R. M. (1 GS)†-----      | Carteret, N. J.    |
| Johnson, A. B. (1 Ar)†-----     | Spartanburg        |
| Johnson, C. E. (3 CE)-----      | Newberry           |
| Johnson, E. M. (1 E)†-----      | Aiken              |
| Johnson, F. D. (3 V Ag Ed)----- | Tryon, N. C.       |
| Johnson, H. A. (2 A)-----       | Aiken              |
| Johnson, J. W. (2 V Ag Ed)----- | Easley             |
| Johnson, L. M. (2 V Ag Ed)----- | Edgefield          |
| Johnson, M. C. (3 EE)-----      | Cottageville       |
| Johnstone, E. P. (2 GS)-----    | Newberry           |
| Jolley, G. C. (2 T)-----        | Anderson           |
| Jones, C. L. (2 E)-----         | Columbia           |
| Jones, C. M. (3 V Ag Ed)-----   | Dacusville         |
| Jones, E. H. (3 V Ag Ed)-----   | Nichols            |
| Jones, E. L. (1 E)†-----        | Lake City          |
| Jones, E. M. (3 T)-----         | Greenville         |
| Jones, George W. (1 A)†-----    | Ruffin             |
| Jones, Guy W. (1 V Ag Ed)†----- | Greenville         |
| Jones, H. C. (2 GS)-----        | Saluda             |
| Jones, J. B. (2 Ch Engr)-----   | Buffalo            |
| Jones, J. Dargan (1 T)†-----    | Buffalo            |
| Jones, J. Davis (1 T)†-----     | North              |
| Jones, L. F. (3 CE)-----        | Walhalla           |
| Jones, R. J. (4 T)-----         | Greenville         |
| Jones, R. M. (3 GS)-----        | Saluda             |
| Jordon, B. S. (4 ME)-----       | Ridge Spring       |
| Jordon, J. E. (2 V Ag Ed)-----  | Jefferson          |
| Jordon, W. W. (2 V Ag Ed)-----  | Timmons ville      |
| Josey, D. K. (4 AH)-----        | Bishopville        |
| Joyce, D. T. (3 AH)-----        | Greenwood          |
| Joyner, N. P. (4 V Ag Ed)-----  | Ward               |
| Kearse, F. M. (1 A)†-----       | Ehrhardt           |
| Kearse, W. H. (2 E)-----        | Olar               |
| Keel, S. T. (2 CE)-----         | Allendale          |
| Keitt, B. H. (3 T)-----         | Newberry           |
| Keller, W. B. (S)-----          | Clemson            |
| Kelley, S. G. (1 V Ag Ed)†----- | Blaney             |
| Kelly, E. S. (3 T)†-----        | Anderson           |
| Kelly, J. G. (1 T)†-----        | Rock Hill          |
| Kelly, J. W. (3 D)-----         | Bishopville        |
| Kelly, W. F. (1 T)†-----        | Anderson           |
| Kennedy, G. C. (2 E)-----       | New Zion           |
| Kennedy, H. M. (2 T)-----       | New Zion           |
| Kerchmar, A. (2 A)†-----        | Clemson            |
| Kerhulas, T. E. (2 GS)-----     | Union              |
| Kerrison, E. H. (3 AH)-----     | Charleston         |
| Kienzie, W. J. (3 ME)-----      | Bethlehem, Penn.   |
| King, A. P. (2 E)†-----         | Ninety Six         |
| King, F. M. (3 V Ag Ed)-----    | Seneca             |
| King, G. E. (1 Ag Engr)†-----   | McBee              |
| King, J. E. (1 C)†-----         | Clemson            |
| King, J. N. (4 EE)-----         | Williamston        |
| King, P. P. (2 GS)-----         | Charleston         |
| King, R. A. (2 T)-----          | Abbeville          |
| Kirby, G. W. (1 T)†-----        | Greenville         |
| Kirby, M. D. (2 V Ag Ed)-----   | Timmons ville      |
| Kirby, T. S. (1 A)†-----        | Ft. Pierce, Fla.   |
| Kirchner, A. H. (2 GS)-----     | Greenville         |
| Kirk, J. M. (3 V Ag Ed)-----    | Heath Springs      |

| Name and Course                 | Residence        | Name and Course               | Residence          |
|---------------------------------|------------------|-------------------------------|--------------------|
| Kirkland, R. W. (1 E)†          | Newberry         | Lindsay, R. J. (2 E)          | Chester            |
| Kirkley, J. B. (4 I Ed)         | Kershaw          | Linley, J. W. (4 Ar)          | Anderson           |
| Kirkpatrick, C. D. (2 V Ag Ed)  | Summerton        | Lipscomb, J. B. (3 V Ag Ed)   | Ninety Six         |
| Kirkpatrick, O. S. (1 Ag Engr)† | Great Falls      | Little, J. F. (2 T)           | Belton             |
| Kirkpatrick, W. D. (2 A)        | Great Falls      | Little, W. H. (2 WD)          | Belton             |
| Kirton, J. J. (3 Ch Engr)       | Cades            | Littlejohn, C. E. (2 Ch Engr) | Raleigh, N. C.     |
| Kiser, H. W. (1 T)†             | Laurens          | Livingston, G. F. (1 E)†      | Leesville          |
| Kitchens, E. L. (4 TIE)         | Laurens          | Livingston, W. C. (2 C)       | Greenville         |
| Kivett, T. L. (1 Ar)†           | Greenville       | Lommack, E. K. (2 I Ed)       | Newberry           |
| Klugh, E. P. (1 C)†             | Greenwood        | Lominack, R. G. (3 I Ed)      | Newberry           |
| Klugh, T. S. (1 T)†             | Clemson          | London, F. H. (1 E)†          | Rock Hill          |
| Knight, L. S. (1 A)†            | Harleyville      | London, J. R. (1 T)†          | Rock Hill          |
| Knox, F. T. (3 CE)              | Norwood, Penn.   | Long, C. (1 V Ag Ed)          | Saluda             |
| Knox, H. B. (2 T)               | Iva              | Long, R. A. (1 E)†            | Greenwood          |
| Knox, J. B. (1 E)†              | Chester          | Lowder, J. M. (1 A)           | Turbeville         |
| Koger, J. H. (1 T)†             | Walterboro       | Lowe, F. D. (1 E)†            | Columbia           |
| Kolb, K. W. (3 Ch Engr)†        | Savannah, Ga.    | Lowe, W. H. (1 T)†            | Union              |
| Kreutzer, F. M. (1 Ag Engr)†    | Winnsboro        | Loyless, E. M. (3 T)          | Greenville         |
| Krickhan, W. F. (3 GS)          | Charleston       | Lucas, T. E. (1 T)†           | Charlotte, N. C.   |
| Lachicotte, A. S. (1 T)†        | Waverly Mills    | Lyles, J. T. (2 GS)           | Columbia           |
| Lachicotte, W. S. (3 EE)        | Charlotte, N. C. | Lynch, R. M. (1 E)†           | East Orange, N. J. |
| Ladd, T. A. (1 T)†              | Dawkins          | Lynes, J. M. (2 AH)           | Fairfax            |
| Lafaye, W. L. (3 Ar)            | Columbia         | Lynes, R. M. (2 GS)†          | Fairfax            |
| LaGrone, W. E. (1 E)†           | Johnston         | Lytton, C. B. (3 I Ed)        | Sharon             |
| Laier, O. J. (1 E)†             | Columbia         | Lytton, J. L. (1 E)†          | Marion             |
| Lancaster, S. (1 T)†            | Spartanburg      | Lytton, K. G. (1 A)†          | Sharon             |
| Jane, C. S. (2 E)†              | Timmons ville    | McAdams, D. A. (1 T)†         | Iva                |
| Lane, M. (4 V Ag Ed)            | Dillon           | McAdams, W. N. (4 Ag Engr)    | Iva                |
| Laney, K. S. (4 AH)             | Cheraw           | McAlhany, H. J. (3 GS)        | Branchville        |
| Lanford, L. E. (2 V Ag Ed)      | Woodruff         | McAlister, H. B. (4 T)        | Pendleton          |
| Langford, P. W. (3 Hort)        | Blythe wood      | McAlister, P. W. (1 T)†       | Spartanburg        |
| Langford, R. H. (1 E)†          | Saluda           | McAlpine, L. E. (3 EE)        | Union              |
| Langston, R. H. (4 Ag Engr)     | Florence         | McCarley, G. H. (3 AH)        | Anderson           |
| Lanham, T. E. (2 GS)            | Edgefield        | McCarter, R. Y. (2 T)         | Rock Hill          |
| Lapham, J. M. (3 AH)            | Lynchburg        | McClam, R. L. (1 Ag Engr)†    | Leo                |
| LaRoche, J. J. (3 EE)           | Charleston       | McClanahan, W. A. (1 GS)†     | Spartanburg        |
| Law, W. C. (2 T)                | Hartsville       | McClure, G. W. (2 A)          | Parris Island      |
| Law, W. P. (4 Ag Engr)          | Darlington       | McClure, J. B. (2 A)          | Anderson           |
| Lawhon, H. L. (4 T)             | Union            | McConnell, T. S. (4 AH)       | Anderson           |
| Lawrence, J. M. (1 Ag Engr)†    | Seneca           | McCord, R. L. (2 GS)          | Greenwood          |
| Lawrence, R. E. (4 EE)          | Effingham        | McCorkle, P. H. (3 EE)        | York               |
| Lawton, C. B. (2 C)             | Fairfax          | McCown, K. J. (3 EE)          | Anderson           |
| Lawton, J. G. (2 GS)            | York             | McCoy, W. T. (1 E)†           | Camden             |
| Lawton, M. R. (2 GS)            | Garnett          | McCrackin, J. T. (3 Agr)      | Newberry           |
| Lawton, P. S. (2 A)             | Garnett          | McCrary, R. R. (2 GS)         | Clinton            |
| Lawton, T. O. (2 GS)            | Garnett          | McCrary, W. V. (2 T)          | Anderson           |
| Lee, A. P. (1 E)†               | Charleston       | McCully, J. G. (2 GS)         | Anderson           |
| Lee, A. T. (1 E)†               | Greenville       | McCurry, E. T. (3 ME)         | Anderson           |
| Lee, F. L. (1 V Ag Ed)†         | Coward           | McCurry, J. E. (4 Ent)        | Anderson           |
| Lee, H. G. (1 E)†               | Fort Mill        | McCutchen, L. E. (2 CE)       | Union              |
| Lee, J. B. (2 Ar)               | Alcolu           | McCutchen, W. G. (2 V Ag Ed)  | Bishopville        |
| Lee, P. E. (3 Ar)               | Greenville       | McDowell, E. B. (2 V Ag Ed)   | Kershaw            |
| Lee, W. L. (3 Ag Engr)          | Hamer            | McEachern, E. H. (3 Ent)      | Ridgeway           |
| Legare, T. G. (4 D)             | Yonges Island    | McFadden, J. B. (2 A)         | Great Falls        |
| Leigh, H. D. (2 E)†             | Summerton        | McFadden, N. J. (3 Agr)       | Sardinia           |
| Leitner, W. A. (4 D)            | Marion           | McFall, G. R. (1 GS)†         | Pickens            |
| LeMaster, H. L. (1 A)†          | Gaffney          | McGee, R. R. (4 T)            | Greenwood          |
| Leemon, J. C. (2 A)             | Winnsboro        | McGinty, W. M. (2 Ar)         | Clemson            |
| Leonhirth, W. (1 T)†            | Sumter           | McGowan, H. R. (4 TIE)        | Chester            |
| Lesesne, D. S. (4 ME)           | Charleston       | McGowan, S. B. (2 CE)         | Wagner             |
| Lesesne, E. H. (1 E)†           | Charleston       | McGowan, W. C. (1 V Ag Ed)†   | Hampton            |
| Leslie, H. W. (1 Ar)†           | Bennettsville    | McIntosh, H. M. (2 E)         | Florence           |
| Lester, N. R. (3 V Ag Ed)       | Newberry         | McIntosh, W. A. (2 Ch Engr)†  | Summerville        |
| Lever, J. H. (3 AH)             | Columbia         | McKagen, O. H. (1 V Ag Ed)†   | Kershaw            |
| Lever, J. J. (1 A)†             | Cayce            | McKenzie, J. C. (1 V Ag Ed)†  | Scranton           |
| Levin, J. H. (2 TC)             | Beaufort         | McKenzie, S. A. (2 A)         | Mullins            |
| Lewis, E. L. (1 E)†             | Greenville       | McKeown, C. M. (4 EE)         | Chester            |
| Lewis, H. D. (S)                | Mullins          | McKeown, H. (2 E)             | Spartanburg        |
| Lewis, J. O. (1 V Ag Ed)        | Mullins          | McKeown, W. H. (1 T)†         | Chester            |
| Lightsey, J. H. (3 A)           | Fairfax          | McKinney, H. E. (1 T)†        | Greenwood          |
| Liles, J. R. (2 CE)             | McColl           | McKinney, H. H. (4 Ag Engr)   | Chesnee            |
| Lindsay, J. B. (2 CE)           | Clemson          |                               |                    |



| Name and Course               | Residence          | Name and Course                | Residence             |
|-------------------------------|--------------------|--------------------------------|-----------------------|
| McKinney, J. G. (1 T)†        | Georgetown         | Mauney, R. V. (1 T)†           | Bessemer City, N. C.  |
| McKinney, R. M. (1 V Ag Ed)†  | Chesnee            | Maxey, R. L. (2 E)             | Raleigh, N. C.        |
| McKinney, W. P. (2 Ar)        | Anderson           | May, D. R. (2 T)               | West Asheville, N. C. |
| McKnight, B. G. (1 GS)†       | Blythewood         | Maybin, A. H. (1 V Ag Ed)†     | Pomaria               |
| McKnight, J. C. (2 GS)        | Blythewood         | Maynard, B. A. (1 A)†          | Florence              |
| McKorell, R. B. (2 E)         | Hartsville         | Mayne, S. C. (4 T)             | Clemson               |
| McLane, E. M. (1 Ar)†         | Pelzer             | Mays, H. B. (2 GS)             | Fair Play             |
| McLaughlin, J. J. (1 E)†      | Charleston         | Mazinski, R. T. (2 Ch Engr)    | Jersey City, N. J.    |
| McLaurin, C. H. (2 C)         | St. Matthews       | Mazo, E. (2 E)                 | Charleston            |
| McLaurin, K. F. (2 GS)        | St. Matthews       | Mellette, E. B. (3 EE)         | Sharon                |
| McLean, C. S. (1 T)†          | Hartsville         | Meree, C. E. (2 E)             | Charleston            |
| McLean, W. K. (1 V Ag Ed)†    | Blythewood         | Merritt, H. N. (1 GS)†         | Lake City             |
| McLeod, B. F. (3 EF)          | Clio               | Meyer, C. E. (3 EE)            | Greenville            |
| McLeod, R. R. (1 E)†          | Hartsville         | Mikell, H. L. (4 D)            | Charleston            |
| McMahon, E. O. (1 C)†         | Sanford, N. C.     | Miles, A. O. (2 E)             | Biddeford, Me.        |
| McMakin, G. C. (2 Ch Engr)    | Wellford           | Miley, C. C. (3 Hort)          | Brunson               |
| McMaster, J. F. (1 T)†        | Winnsboro          | Miley, W. F. (3 V Ag Ed)       | Brunson               |
| McMaster, R. G. (1 A)†        | Winnsboro          | Millard, J. M. (1 Ag Engr)†    | Clemson               |
| McMillan, G. M. (2 T)         | Chattanooga, Tenn. | Miller, B. (4 Hort)            | Greenville            |
| McMillan, J. (2 Hort)         | Saluda             | Miller, G. M. (2 E)            | Greenwood             |
| McMillan, J. A. (1 GS)†       | Bamberg            | Miller, H. E. (4 V Ag Ed & AH) | Ridgeland             |
| McNair, H. S. (1 T)†          | Patrick            | Miller, H. F. (1 A)            | Jefferson             |
| McNair, T. T. (2 GS)          | Salley             | Miller, J. H. (1 E)†           | Charleston            |
| McNair, W. D. (2 E)           | Patrick            | Miller, L. L. (3 V Ag Ed)      | Dillon                |
| McNair, W. H. (1 A)†          | Gable              | Miller, M. M. (3 I Ed)         | Charleston            |
| McPhail, C. L. (1 T)†         | Anderson           | Miller, W. E. (2 V Ag Ed)      | Camden                |
| McPhail, F. E. (2 V Ag Ed)    | Iva                | Mills, F. C. (2 E)             | Acworth, Ga.          |
| McPherson, R. J. (1 V Ag Ed)† | Kershaw            | Mills, W. L. (2 V Ag Ed)       | Campobello            |
| McSwain, J. W. (4 T)          | Raleigh, N. C.     | Mims, E. H. (1 A)†             | Columbia              |
| Macartney, O. K. (3 T)        | Alta Vista, Va.    | Mims, P. G. (3 EE)             | Lamar                 |
| Mace, J. S. (1 E)†            | Charleston         | Mitchell, F. G. (2 E)          | Charleston            |
| Mackintosh, D. M. (2 CE)      | Rock Hill          | Mitchell, H. (4 Hort)          | Greenville            |
| Mackintosh, J. D. (3 CE)      | McClellanville     | Mitchell, L. A. (1 E)          | North Augusta         |
| Macomson, W. W. (3 EE)        | Spartanburg        | Mitchell, R. E. (1 E)†         | Greenville            |
| Magee, W. W. (2 GS)           | Anderson           | Mitchell, W. A. (4 GS)         | Clemson               |
| Mahon, P. M. (3 EE)           | Calhoun Falls      | Mitchell, W. B. R. (3 EE)      | Charleston            |
| Malphrus, L. D. (4 Ag Ec)     | Ridgeland          | Mobley, F. B. (2 V Ag Ed)      | Lodge                 |
| Maness, L. E. (1 E)†          | Georgetown         | Monckton, W. H. (3 T)          | Columbia              |
| Manning, L. W. (1 E)          | Latta              | Montgomery, J. B. (3 T)        | Spartanburg           |
| Manning, W. H. (2 Ag Engr)    | Barnwell           | Moon, C. C. (2 WD)             | Spartanburg           |
| Mappus, W. A. (2 C)           | Charleston         | Moon, H. D. (2 I Ed)           | Westminster           |
| Marett, H. D. (2 V Ag Ed)     | Fair Play          | Mooney, W. H. (1 T)†           | Hawkinsville, Ga.     |
| Maroney, J. P. (3 T)          | Fountain Inn       | Moore, E. L. (2 E)†            | Broxton, Ga.          |
| Marquis, K. J. (1 E)          | Chesnee            | Moore, F. L. (3 C)             | Kingstree             |
| Marshall, J. D. (4 T)         | Ridgeland          | Moore, G. S. (2 Ar)            | Rock Hill             |
| Marshall, P. (2 C)            | Anderson           | Moore, H. P. (1 GS)            | Orangeburg            |
| Marshall, R. B. (2 F)         | West Union         | Moore, J. B. (3 CE)            | McColl                |
| Martin, C. L. (3 I Ed)        | Westminster        | Moore, J. T. (1 GS)†           | Inman                 |
| Martin, E. E. (1 C)†          | Gray Court         | Moore, M. M. (1 E)†            | Roanoke Rapids, N. C. |
| Martin, E. F. (1 E)†          | New York, N. Y.    | Moore, T. A. (4 GS)            | Rock Hill             |
| Martin, E. L. (1 A)†          | Simpsonville       | Moore, W. E. (1 T)†            | Commerce, Ga.         |
| Martin, F. C. (2 E)           | Gaffney            | Moorer, C. P. (3 I Ed)         | Harleyville           |
| Martin, G. M. (4 Ed)          | Westminster        | Moorer, D. F. (2 C)            | St. George            |
| Martin, H. G. (2 A)†          | Columbia           | Moorer, T. R. (2 Ed)           | Charleston            |
| Martin, J. F. (3 ME)          | Anderson           | Moorman, R. W. (2 CE)          | Clemson               |
| Martin, J. L. (1 E)†          | Spartanburg        | Morgan, B. T. (2 WD)           | Rockmart, Ga.         |
| Martin, J. R. (3 ME)          | Anderson           | Morgan, D. C. (3 Agr)          | Wellford              |
| Martin, L. C. (1 A)†          | Seneca             | Morgan, J. C. (S)†             | Sale Creek, Tenn.     |
| Martin, R. H. (4 V Ag Ed)     | Simpsonville       | Morgan, J. W. (4 CE)           | Savannah, Ga.         |
| Martin, R. W. (4 ME)          | Fort Mill          | Morgan, O. F. (4 CE)           | Clemson               |
| Martin, W. E. (1 T)†          | Greenville         | Morgan, P. E. (2 GS)           | Gaffney               |
| Martin, W. W. (1 GS)†         | Columbia           | Morgan, S. C. (1 A)†           | Central               |
| Martinell, R. A. (1 T)†       | Enoree             | Morgan, T. W. (S)              | Clemson               |
| Marvin, E. A. (3 AH)          | Green Pond         | Morris, I. D. (1 T)†           | Olar                  |
| Marvin, J. H. (1 T)†          | Lobeco             | Morris, R. F. (1 T)†           | Charlotte, N. C.      |
| Mason, K. R. (2 E)            | Kingstree          | Mosely, W. B. (2 GS)           | Savannah, Ga.         |
| Mason, W. E. (1 T)†           | Pacolet Mills      | Moss, R. W. (2 GS)             | Charleston            |
| Massey, L. M. (2 E)           | Fort Mill          | Motes, M. M. (4 GS)            | Mountville            |
| Mathis, W. H. (2 GS)          | Augusta, Ga.       | Mouchet, W. R. (4 Agr)         | Starr                 |
| Matthew, R. T. (4 ME)         | Charleston         | Muldrow, H. G. (3 Ag Ec)       | Bishopville           |
| Matthews, W. B. (1 C)†        | Orlando, Fla.      | Muller, J. C. (2 Ar)           | Charleston            |
| Matyoska, J. W. (1 GS)†       | Nashua, N. H.      | Mulling, F. J. (2 Ch Engr)     | Pritchardville        |
|                               |                    | Mundy, G. W. (2 T)             | Abbeville             |

| Name and Course                  | Residence            | Name and Course                    | Residence            |
|----------------------------------|----------------------|------------------------------------|----------------------|
| Murph, J. L. (2 CE)-----         | Seneca               | Parks, J. B. (1 E)†-----           | Fountain Inn         |
| Murphy, J. B. (3 GS)-----        | Darlington           | Parrish, B. C. (1 T)†-----         | Easley               |
| Murray, T. A. (2 GS)-----        | Union                | Parrish, J. W. (2 T)-----          | Clover               |
| Murray, B. D. (1 E)†-----        | St. George           | Parrott, D. L. (2 Ar)-----         | Central              |
| Murray, J. W. (4 GS)-----        | Columbia             | Parthemos, J. (1 E)†-----          | Abbeville            |
| Murray, R. M. (4 D)-----         | Spartanburg          | Pasley, J. H. (1 T)†-----          | Alexander City, Ala. |
| Myers, C. O. (2 V Ag Ed)-----    | Bowman               | Pate, E. (1 Ag Engr)†-----         | Camden               |
| Myers, G. F. (1 A)†-----         | Scranton             | Pate, E. P. (1 E)†-----            | St. George           |
| Myers, J. B. (1 V Ag Ed)†-----   | Orangeburg           | Patterson, S. P. (3 TC)-----       | Seneca               |
| Nalley, A. C. (1 T)†-----        | Easley               | Paul, E. M. (1 T)†-----            | Greenville           |
| Nance, P. M. (1 E)†-----         | Anderson             | Paulling, B. M. (2 E)-----         | St. Matthews         |
| Neal, A. A. (1 E)†-----          | Greenville           | Paulsen, G. C. (4 C)-----          | Ehrhardt             |
| Neil, J. M. (1 T)†-----          | Rock Hill            | Payne, A. C. (4 GS)-----           | Newberry             |
| Neil, R. M. (1 T)†-----          | Rock Hill            | Payne, J. E. (2 T)-----            | Piedmont             |
| Nelson, H. N. (1 T)†-----        | Charleston           | Payne, W. J. (4 Ch Engr)-----      | Charlotte, N. C.     |
| Nelson, O. T. (1 T)†-----        | Montgomery, Ala.     | Payne, W. O. (4 D)-----            | Greenville           |
| Nelson, P. H. (2 E)-----         | Maplewood, N. J.     | Pearce, R. R. (1 GS)†-----         | Columbia             |
| Neville, M. (2 E)-----           | Walhalla             | Pearman, J. N. (2 ME)-----         | Honea Path           |
| New, A. G. (4 T)-----            | Greenville           | Pearson, B. F. (3 T)-----          | Bluffton             |
| Newell, J. C. (1 E)†-----        | Hemingway            | Pearson, R. L. (2 E)-----          | Wellford             |
| Newman, G. M. (3 GS)-----        | Charlotte, N. C.     | Peden, T. E. (4 T)-----            | Gray Court           |
| Newson, B. S. (1 V Ag Ed)†-----  | Ruby                 | Peebles, F. E. (3 A)†-----         | Camden               |
| Newton, C. G. (2 V Ag Ed)-----   | Myrtle Beach         | Peeling, B. A. (3 Hort)-----       | Harrisburg, Penn.    |
| Newton, E. D. (1 E)†-----        | Millen, Ga.          | Pelham, W. E. (1 C)†-----          | Greenville           |
| Nichols, C. W. (1 V Ag Ed)†----- | Ninety Six           | Pendarvis, J. H. (1 A)†-----       | Harleyville          |
| Nichols, G. M. (S)-----          | Savannah, Ga.        | Pender, M. T. (2 Ag Engr)-----     | Williston            |
| Nichols, H. D. (1 E)†-----       | White Pine, Tenn.    | Pennington, C. W. (2 V Ag Ed)----- | Columbia             |
| Nichols, M. M. (3 C)-----        | Columbia             | Perez, E. F. (3 ME)-----           | Greenville           |
| Nichols, P. W. (3 V Ag Ed)-----  | Saluda               | Pericola, R. A. (2 GS)-----        | Charleston           |
| Nicholson, N. (1 A)†-----        | Greenwood            | Perna, F. J. (2 CE)-----           | Riverside, Conn.     |
| Nickles, J. B. (3 GS)-----       | Hodges               | Perry, B. F. (1 A)†-----           | Simpsonville         |
| Nickles, W. B. (1 E)†-----       | Hodges               | Perry, C. G. (1 E)†-----           | Florence             |
| Nilson, H. A. (2 Ar)-----        | Walterboro           | Perry, H. D. (1 E)†-----           | Gresham              |
| Nipper, J. W. (1 T)†-----        | Florence, Ala.       | Peterson, T. E. (1 T)†-----        | Spartanburg          |
| Northrup, W. B. (3 EE)-----      | Springfield          | Peurifoy, J. E. (1 GS)†-----       | Walterboro           |
| Norton, E. (4 ME)-----           | Conway               | Phillips, J. V. (2 CE)-----        | Gaffney              |
| Norton, M. (4 GS)-----           | Gibson, N. C.        | Pike, C. E. (4 Ag Ec)-----         | Calhoun              |
| Oates, W. J. (2 Ag Engr)-----    | Chester              | Pinson, H. G. (1 T)†-----          | Cross Hill           |
| O'Dell, R. S. (1 V Ag Ed)†-----  | Liberty              | Pinson, J. B. (3 GS)-----          | Cross Hill           |
| Okurowski, W. B. (2 E)-----      | Chester              | Pitchford, C. W. (1 E)†-----       | Walhalla             |
| Oliver, J. H. (4 Ch Engr)-----   | Charleston           | Pitts, J. J. (1 A)†-----           | Newberry             |
| Olson, E. S. (4 TC)-----         | Columbia             | Pitts, W. R. (1 E)†-----           | Clinton              |
| O'Neal, F. W. (2 Hort)-----      | Anderson             | Plank, C. G. (2 E)-----            | Charleston           |
| O'Neal, S. C. (1 A)†-----        | Fairfax              | Platt, J. M. (1 T)†-----           | Wedgfield            |
| Oricko, M. A. (1 E)†-----        | Bethlehem, Penn.     | Player, J. E. (1 T)-----           | Gable                |
| Orr, J. L. (2 T)-----            | Anderson             | Plowden, W. M. (2 E)-----          | Simpsonville         |
| Orr, R. E. (1 A)†-----           | Walhalla             | Pollitzer, R. G. (4 ME)-----       | Beaufort             |
| Osborne, J. (1 E)†-----          | Hardeeville          | Poole, C. B. (1 E)†-----           | Gaffney              |
| O'Shields, W. R. (1 T)†-----     | Darlington           | Poore, F. J. (1 TIE)-----          | Ware Shoals          |
| Osteen, R. T. (1 T)†-----        | Greenville           | Pope, C. J. (1 T)†-----            | Charleston           |
| Oswald, H. C. (2 I Ed)-----      | Lexington            | Pope, D. T. (3 Ag Engr)-----       | Edisto Island        |
| Outz, G. (1 V Ag Ed)†-----       | Fair Play            | Pope, J. M. (4 Ag Engr)-----       | Edisto Island        |
| Overcash, L. W. (1 GS)†-----     | Florence             | Posey, W. W. (3 T)†-----           | Spartanburg          |
| Owen, S. E. (1 T)†-----          | Batesburg            | Potter, C. L. (1 Ar)†-----         | Tucapau              |
| Owens, J. W. (2 GS)-----         | Ridgeland            | Powers, J. T. (1 Ar)†-----         | Summerville          |
| Owens, W. O. (1 E)†-----         | St. George           | Powers, M. R. (3 Ag Engr)-----     | Marion               |
| Pace, J. E. (1 A)†-----          | Gresham              | Prause, W. K. (3 ME)-----          | Charleston           |
| Padgett, C. A. (2 Ch Engr)-----  | Panama City, Fla.    | Pregnall, A. H. (3 ME)-----        | Charleston           |
| Padgett, C. D. (1 C)†-----       | Saluda               | Prentiss, W. O. (1 T)†-----        | McClellanville       |
| Page, G. D. (3 GS)-----          | Greenwood            | Prestwood, J. G. (4 ME)-----       | Clemson              |
| Page, N. R. (3 C & GS)-----      | Lake View            | Price, V. L. (2 E)-----            | Walterboro           |
| Painter, H. L. (1 A)†-----       | Chesnee              | Prichard, H. D. (2 Ag Engr)-----   | Westminster          |
| Palmer, G. E. (1 GS)†-----       | Allendale            | Prince, A. G. (4 V Ag Ed)-----     | Abbeville            |
| Palmer, J. B. (3 A)-----         | Sumter               | Prince, C. W. (3 V Ag Ed)-----     | Six Mile             |
| Palmer, J. S. (4 GS)-----        | Allendale            | Pritchett, J. R. (3 V Ag Ed)-----  | Holly Hill           |
| Park, G. B. (1 A)†-----          | Greenwood            | Pritchett, J. U. (4 Ed)-----       | Clemson              |
| Park, W. C. (1 E)†-----          | Winston-Salem, N. C. | Proctor, W. K. (2 A)-----          | Olanta               |
| Parker, H. C. (2 I Ed)-----      | Crocketville         | Proffitt, R. V. (1 T)†-----        | Spartanburg          |
| Parker, J. P. (4 Hort)-----      | Graniteville         | Propst, M. C. (2 Ch Engr)-----     | Charlotte, N. C.     |
| Parker, J. W. (4 GS)-----        | Ebenezer             | Propst, R. C. (1 E)†-----          | Aiken                |
|                                  |                      | Pruitt, S. H. (2 V Ag Ed)-----     | Anderson             |
|                                  |                      | Pryor, B. Y. (1 E)†-----           | Asheville, N. C.     |



| Name and Course                       | Residence             |
|---------------------------------------|-----------------------|
| Pugh, W. E. (2 A)-----                | Kingstree             |
| Putnam, H. D. (2 T)-----              | Cherryville, N. C.    |
| Quantz, W. P. (2 Ch Engr)-----        | Timmons ville         |
| Rabinowitz, M. (2 GS)-----            | Allendale             |
| Radcliffe, J. H. (3 T)-----           | Aiken                 |
| Ragsdale, W. J. (2 E)-----            | Easley                |
| Rain, W. L. (1 E)†-----               | Florence              |
| Rainey, C. W. (3 V Ag Ed)-----        | Starr                 |
| Rainville, H. B. (1 E)†-----          | Spartanburg           |
| Ramsey, M. H. (1 T)†-----             | Anderson              |
| Ramsey, T. E. (4 Ch Engr)-----        | Calhoun               |
| Rankin, G. H. (S)-----                | Tamassee              |
| Rankin, J. A. (1 V Ag Ed)†-----       | Allsbrook             |
| Rankin, J. J. (1 Ag Engr)†-----       | Tamassee              |
| Rankin, J. R. (1 V Ag Ed)†-----       | Allsbrook             |
| Rankin, J. T. (1 E)†-----             | Greenville            |
| Rawl, F. L. (2 V Ag Ed)-----          | Lykesland             |
| Rawl, H. J. (4 Ch Engr)-----          | Lexington             |
| Rawls, L. T. (1 Ar)†-----             | Columbia              |
| Ray, E. C. (4 C)-----                 | Andrews               |
| Raynor, H. A. (3 C)-----              | Greenville            |
| Rea, G. H. (3 CE)†-----               | Bethlehem, Penn.      |
| Reames, J. F. (3 Ag Ec)-----          | Bishopville           |
| Reaves, A. L. (1 E)†-----             | Bishopville           |
| Redfern, I. C. (1 V Ag Ed)-----       | Chesterfield          |
| Redfern, R. B. (1 V Ag Ed)†-----      | Hoffman, N. C.        |
| Reed, T. C. (4 EE)-----               | Sumter                |
| Reeves, C. L. (3 GS)-----             | Anderson              |
| Reich, R. P. (S)†-----                | New York, N. Y.       |
| Reid, G. F. (1 E)†-----               | Gaffney               |
| Reid, S. F. (2 A)-----                | Fort Motte            |
| Rentz, C. S. (1 A)†-----              | Clemson               |
| Rex, G. L. (3 ME)-----                | Greenville            |
| Reynolds, R. J. (4 TC)-----           | Great Falls           |
| Reynolds, R. M. (4 V Ag Ed)-----      | Lamar                 |
| Rhodes, A. P. (1 E)†-----             | Walhalla              |
| Rhodes, L. M. (3 D)-----              | Darlington            |
| Rhodes, T. M. (1 Ag Engr)†-----       | Estill                |
| Rhodes, W. G. (2 E)-----              | Savannah, Ga.         |
| Rhodes, W. H. (1 E)†-----             | Darlington            |
| Rhodes, W. T. (1 T)†-----             | Mayesville            |
| Rhyne, W. A. (2 T)-----               | Greenville            |
| Richardson, D. (4 AH)-----            | Gresham               |
| Richardson, J. H. (1 E)†-----         | Georgetown            |
| Richardson, J. O. W. (2 V Ag Ed)----- | Marion                |
| Richardson, T. (2 E)-----             | Maplewood, N. J.      |
| Richardson, T. E. (4 Ag Ec)-----      | Varnville             |
| Richburg, W. L. (1 E)†-----           | Liberty               |
| Rickenbaker, J. B. (4 V Ag Ed)-----   | Camden                |
| Rickenbaker, M. W. (1 E)†-----        | Summerton             |
| Riddick, A. T. (1 E)†-----            | Florence              |
| Riddle, J. H. (4 T)-----              | York                  |
| Riddle, J. T. (1 GS)†-----            | Piedmont              |
| Riddle, W. M. (2 E)-----              | Jacksonboro           |
| Rion, A. H. (1 GS)-----               | Columbia              |
| Rion, J. W. (S)-----                  | Columbia              |
| Risher, H. B. (4 Ch Engr)-----        | Charleston            |
| Ritter, C. L. (1 A)†-----             | Varnville             |
| Rivenbark, R. W. (3 GS)-----          | Marion                |
| Rivers, P. F. (2 CE)-----             | Aiken                 |
| Roberts, H. T. (1 GS)†-----           | Green Sea             |
| Roberts, J. R. (1 E)†-----            | West Palm Beach, Fla. |
| Robinson, C. (2 I Ed)-----            | Spartanburg           |
| Robinson, H. H. (1 T)†-----           | Union                 |
| Robinson, H. W. (1 A)†-----           | St. Matthews          |
| Robinson, J. E. (2 E)-----            | Florence              |
| Robinson, P. B. (1 A)†-----           | St. Matthews          |
| Robinson, R. W. (4 TC)-----           | Columbia              |
| Robinson, T. J. (1 T)†-----           | Easley                |
| Rochester, E. W. (3 V Ag Ed)-----     | Salem                 |
| Rodgers, J. R. (1 T)†-----            | Taylor                |

| Name and Course                     | Residence           |
|-------------------------------------|---------------------|
| Rodman, E. J. (1 Ag Engr)†-----     | Rodman              |
| Rogers, D. H. (1 A)†-----           | Blenheim            |
| Rogers, F. E. (1 Ag Engr)†-----     | Darlington          |
| Rogers, H. C. (4 V Ag Ed)-----      | Clio                |
| Rogers, J. R. (2 E)-----            | Latta               |
| Rogers, L. (1 V Ag Ed)†-----        | Hemingway           |
| Rogers, L. V. (2 C)-----            | Atlanta, Ga.        |
| Romanowski, G. S. (1 Ed)†-----      | Chester             |
| Roper, D. B. (2 TC)-----            | Laurens             |
| Roper, E. R. (2 TC)-----            | Spartanburg         |
| Roper, F. F. (1 V Ag Ed)†-----      | Pickens             |
| Rosenkrans, D. B. (1 E)†-----       | Clemson             |
| Ross, D. J. (1 T)†-----             | New Brookland       |
| Ross, E. A. (1 T)†-----             | Garnett             |
| Ross, G. (1 Ar)†-----               | Greenville          |
| Ross, H. J. (2 V Ag Ed)-----        | Summerton           |
| Rouse, W. A. (3 Hort)-----          | Luray               |
| Rowell, L. S. (1 A)†-----           | Marion              |
| Ruff, J. H. (3 V Ag Ed)-----        | Newberry            |
| Ruff, W. H. (4 C)-----              | Ridgeway            |
| Rush, W. W. (4 V Ag Ed)-----        | Camden              |
| Rushing, B. T. (2 T)-----           | Estill              |
| Rutland, L. E. (1 GS)-----          | Batesburg           |
| Rutledge, A. (3 T)†-----            | Liberty             |
| Rutledge, F. A. (1 E)†-----         | Charleston          |
| Rutledge, T. B. (1 E)†-----         | Charleston          |
| Safy, G. J. (1 E)†-----             | Columbia            |
| Salley, H. G. (2 T)-----            | Buffalo             |
| Salley, J. R. (S)†-----             | Orangeburg          |
| Salley, R. G. (1 Ag Engr)†-----     | Orangeburg          |
| Salley, W. B. (1 Ag Engr)-----      | Orangeburg          |
| Salvo, G. C. (3 Hort)-----          | Charleston          |
| Sanders, A. L. (4 WD)-----          | Pelzer              |
| Sanders, A. S. (4 WD)-----          | Camden              |
| Sanders, A. W. (2 Ch Engr)-----     | Savannah, Ga.       |
| Sanders, R. H. (2 GS)-----          | Commerce, Ga.       |
| Sanders, R. W. (1 Ag Engr)†-----    | Kline               |
| Sanders, W. F. (1 T)†-----          | Camden              |
| Sandifer, W. H. (2 T)-----          | Cope                |
| Sapp, K. (2 GS)†-----               | Lancaster           |
| Sarlin, M. J. (4 C)-----            | Liberty             |
| Saunders, W. P. (1 E)†-----         | Charleston          |
| Saverance, C. R. (4 V Ag Ed)-----   | Elliott             |
| Scarborough, F. H. (3 Ag Engr)----- | Bishopville         |
| Scarborough, R. W. (2 E)-----       | Buffalo             |
| Schirmer, C. C. (4 Ch Engr)-----    | Charleston          |
| Schmidt, J. E. (2 GS)-----          | Seneca              |
| Scott, B. E. (3 Ag Engr)-----       | Spartanburg         |
| Scott, E. B. (2 GS)-----            | Marion              |
| Scott, R. A. (1 E)†-----            | Biddeford, Me.      |
| Seabrook, P. D. (1 A)†-----         | Johns Island        |
| Seabrook, W. C. (3 EE)-----         | Hazleton, Penn.     |
| Searson, C. B. (4 Agr)-----         | Hampton             |
| Seawell, J. T. (4 GS)-----          | Greenville          |
| Secrest, T. S. (1 T)†-----          | East Spencer, N. C. |
| Segars, A. L. (2 A)-----            | Hartsville          |
| Seigler, C. E. (4 Ch Engr)-----     | Anderson            |
| Sellers, A. R. (1 E)†-----          | Florence            |
| Sells, C. K. (2 T)-----             | Charleston          |
| Senn, T. L. (3 Hort)-----           | Newberry            |
| Settle, H. H. (1 V Ag Ed)†-----     | Inman               |
| Settle, J. L. (4 GS)-----           | Landrum             |
| Shaffer, E. T. (2 E)-----           | Walterboro          |
| Shanklin, E. H. (4 T)-----          | Pendleton           |
| Sharp, J. D. (1 A)†-----            | Anderson            |
| Sharpe, R. G. (2 T)-----            | Abbeville           |
| Sharpe, W. B. (2 C)-----            | Orangeburg          |
| Shealy, C. D. (2 I Ed)-----         | Prosperity          |
| Shealy, J. L. (3 Agr)-----          | Batesburg           |
| Shealy, M. C. (2 A)-----            | Batesburg           |
| Shealy, W. L. (2 Ch Engr)-----      | Batesburg           |
| Shelander, E. H. (1 E)†-----        | Brunswick, Ga.      |

| Name and Course              | Residence            | Name and Course                | Residence         |
|------------------------------|----------------------|--------------------------------|-------------------|
| Shell, J. C. (4 WD)          | Laurens              | Spears, R. C. (4 T)            | Union             |
| Shelley, J. C. (4 AH)        | Marion               | Speights, J. M. (4 CE)         | Walterboro        |
| Shelley, R. C. (2 A)         | Marion               | Speissegger, C. F. (1 E)†      | Charleston        |
| Shelley, W. L. (2 V Ag Ed)†  | Green Sea            | Spire, C. E. (2 WD)            | Hartsville        |
| Shepherd, E. W. (3 GS)       | Savannah, Ga.        | Spratt, J. L. (1 GS)†          | Fort Mill         |
| Shipman, O. H. (3 A)†        | Pisgah Forest, N. C. | Sprawls, P. C. (4 V Ag Ed)     | Montmorenci       |
| Shirley, G. E. (1 E)†        | Anderson             | Stackhouse, J. W. (3 EE)       | Mullins           |
| Shirley, James A. (1 E)†     | Westminster          | Stafford, G. H. (1 T)†         | Latta             |
| Shirley, Joe A. (2 TC)       | Bath                 | Stafford, T. I. (4 T)          | Charleston        |
| Shirley, J. T. (1 E)†        | Anderson             | Staley, G. C. (3 ME)           | Gray Court        |
| Shirley, L. (1 E)†           | Anderson             | Stallworth, J. M. (2 GS)       | St. Matthews      |
| Shooter, J. W. (1 E)†        | Nichols              | Stalvey, A. E. (4 ME)          | Conway            |
| Shuler, G. (2 A)             | St. Matthews         | Stanfield, T. F. (3 GS)        | Cordova           |
| Shurtleff, S. J. (1 T)†      | Fairhaven, Mass.     | Stanford, G. W. (3 CE)†        | Greensboro, N. C. |
| Sickel, J. H. (1 A)†         | Anderson             | Stanford, M. C. (1 GS)†        | Union             |
| Simkins, J. E. (3 T)         | Columbia             | Stanley, T. E. (4 Ar)          | Marion            |
| Simmons, C. L. (1 E)†        | Spartanburg          | Stanton, F. B. (S)             | Fork              |
| Simmons, M. F. (1 TC)†       | Greer                | Starr, D. L. (2 GS)            | Walterboro        |
| Simmons, R. E. (2 GS)        | Union                | Starr, P. H. (3 Hort)          | Walterboro        |
| Simms, W. G. (1 T)†          | Summerton            | Sterghos, J. D. (1 E)†         | Greenwood         |
| Simpson, A. T. (2 V Ag Ed)   | Blaney               | Sterne, A. E. (1 T)†           | Cumberland, Md.   |
| Simpson, D. N. (1 V Ag Ed)†  | Iva                  | Stevenson, J. H. (1 T)†        | Marion            |
| Simpson, E. B. (3 EE)†       | Anderson             | Stewart, E. R. (2 V Ag Ed)     | Fountain Inn      |
| Simpson, H. V. (1 T)†        | Anderson             | Stewart, T. H. (1 V Ag Ed)†    | Six Mile          |
| Simpson, J. L. (1 A)†        | Iva                  | Stokely, D. R. (4 Ch Engr)     | Greenville        |
| Simpson, J. W. (2 E)         | Anderson             | Stokes, F. H. (2 Ag Engr)      | Darlington        |
| Sims, J. J. (1 E)†           | Easley               | Stokes, H. G. (4 GS)           | Gray Court        |
| Singletary, J. B. (1 A)†     | Coward               | Stokes, W. H. (3 V Ag Ed)      | Greer             |
| Singletary, J. W. (3 A)      | Coward               | Stone, R. L. (3 GS)†           | Central           |
| Sitton, J. D. (1 GS)†        | Easley               | Stone, W. S. (1 T)†            | Greenville        |
| Skardon, B. N. (4 GS)        | Walterboro           | Stoudemire, G. A. (2 V Ag Ed)  | Little Mountain   |
| Skardon, S. L. (2 GS)        | Walterboro           | Stribling, J. F. (2 Ag Engr)   | Westminster       |
| Sloan, R. A. (3 Agr)         | Marion               | Stribling, S. P. (2 V Ag Ed)   | Westminster       |
| Smith, A. W. (3 T)           | Anderson             | Strickland, O. K. (2 V Ag Ed)  | Nichols           |
| Smith, B. J. (1 T)†          | Clemson              | Stricklin, T. S. (1 E)†        | Richburg          |
| Smith, C. C. (2 GS)          | Winter Haven, Fla.   | Stroud, J. A. (2 T)            | Greenville        |
| Smith, C. E. (1 GS)†         | Ridgeland            | Stubblefield, H. (2 Ar)        | Greenwood         |
| Smith, D. T. (2 Ch Engr)     | Abbeville            | Stuckey, W. H. (3 Agr)         | Bishopville       |
| Smith, D. W. (1 E)†          | Williston            | Sturgis, E. C. (2 A)           | Rock Hill         |
| Smith, Earle H. (1 E)†       | Johnston             | Styron, W. T. (1 E)†           | Columbia          |
| Smith, Edward H. (4 Ent)     | Abbeville            | Sullivan, C. E. (1 E)          | Camden            |
| Smith, E. R. (3 GS)          | Charleston           | Sullivan, J. E. (3 T)          | Anderson          |
| Smith, G. L. (2 T)           | Springfield          | Sullivan, J. W. (1 T)†         | Lodge             |
| Smith, H. D. (1 T)†          | Greenville           | Sullivan, O. E. (2 T)          | Gaffney           |
| Smith, H. Z. (2 A)           | Bennettsville        | Summerbell, W. E. (3 ME)       | Charleston        |
| Smith, J. G. (3 T)           | Clearwater           | Summers, C. B. (2 E)           | Columbia          |
| Smith, J. K. (3 TC)          | Seneca               | Sumner, E. S. (4 Ed)           | Society Hill      |
| Smith, James T. (1 V Ag Ed)† | Bishopville          | Sutton, A. D. (2 CE)           | Fort Mill         |
| Smith, Jerry T. (1 E)†       | Florence             | Sutton, C. B. (1 E)†           | Columbia          |
| Smith, L. B. (2 GS)          | Rainelle, W. Va.     | Sutton, F. H. (2 T)            | Monroe, N. C.     |
| Smith, L. C. (3 T)           | Greenville           | Swearingin, J. C. (1 V Ag Ed)† | Trenton           |
| Smith, L. W. (S)†            | Columbia             | Sweat, C. H. (3 V Ag Ed)       | Walterboro        |
| Smith, M. T. (2 E)           | Walhalla             | Sweeny, J. O. (3 ME & EE)      | Anderson          |
| Smith, P. F. (1 E)†          | Summerville          | Swenson, H. M. (2 GS)          | Clemson           |
| Smith, R. A. (1 V Ag Ed)†    | Fair Play            | Switzer, J. E. (2 V Ag Ed)     | Roebuck           |
| Smith, R. P. (2 T)†          | Chesnee              | Switzer, J. L. (2 GS)          | Union             |
| Smith, S. K. (1 GS)†         | Starr                |                                |                   |
| Smith, S. N. (1 T)†          | Lockhart             | Talbert, J. N. (2 T)           | Troy              |
| Smith, T. L. (2 GS)          | Charleston           | Talbert, T. W. (3 GS)          | Columbia          |
| Smith, W. C. (4 Agr)         | Johnston             | Tarrance, O. A. (1 A)†         | Williston         |
| Smith, W. E. (1 E)†          | Salem                | Tarrant, G. M. (4 CE)          | Columbia          |
| Smith, W. H. (1 E)†          | New Holland, Ga.     | Taylor, A. W. (4 TC)           | Charleston        |
| Smith, W. T. (1 V Ag Ed)†    | Winnsboro            | Taylor, C. B. (1 T)†           | Nichols           |
| Smook, J. W. (1 V Ag Ed)†    | Orangeburg           | Taylor, J. O. (1 V Ag Ed)†     | Mt. Croghan       |
| Smook, R. A. (1 E)†          | Branchville          | Taylor, R. A. (1 GS)†          | Carteret, N. J.   |
| Snead, A. J. (1 E)†          | Greenwood            | Teal, V. F. (3 V Ag Ed)        | Chesterfield      |
| Snell, A. H. (3 Hort)        | Elloree              | Terrell, L. E. (4 Ch Engr)     | Greenville        |
| Snipes, G. L. (2 V Ag Ed)    | Seneca               | Terry, W. B. (4 EE)            | Mullins           |
| Sottile, S. V. (2 CE)        | Charleston           | Terry, W. M. (2 Agr)           | Martins           |
| Soubeyroux, F. H. (1 T)†     | Charleston           | Thackston, J. E. (1 E)†        | Greenville        |
| Souther, B. V. (1 A)         | Campobello           | Thackston, W. H. (3 T)         | Anderson          |
| Southerlin, J. R. (1 E)†     | Greenville           | Thayer, D. R. (2 Ar)           | Spartanburg       |
| Sparks, L. M. (1 A)†         | Gaffney              |                                |                   |

| Name and Course              | Residence            |
|------------------------------|----------------------|
| Theodore, J. (2 I Ed)        | Greenville           |
| Thigpen, J. A. (4 Ar)        | Florence             |
| Thode, F. W. (2 A)†          | Walhalla             |
| Thomas, A. C. (3 V Ag Ed)    | Hampton              |
| Thomas, B. M. (1 V Ag Ed)†   | Greenville           |
| Thomas, E. H. (3 T)          | Prosperity           |
| Thomas, H. J. (3 V Ag Ed)    | Hodges               |
| Thomas, J. D. (1 TIE)†       | Catawba              |
| Thomas, J. M. (2 V Ag Ed)    | Jefferson            |
| Thomas, R. C. (2 V Ag Ed)    | Lamar                |
| Thomas, R. L. (2 E)          | Spartanburg          |
| Thompson, A. R. (4 V Ag Ed)  | Bowman               |
| Thompson, B. G. (1 E)†       | Lodge                |
| Thompson, C. W. (2 V Ag Ed)  | Reevesville          |
| Thompson, F. A. (3 T)        | Williston            |
| Thompson, S. N. (4 V Ag Ed)  | Starr                |
| Thompson, W. F. (4 TC)       | North Augusta        |
| Thomson, B. F. (3 ME)        | Landrum              |
| Thomson, W. P. (1 A)         | Gaffney              |
| Thornburg, R. W. (1 E)†      | Bessemer City, N. C. |
| Thornley, W. H. (1 GS)†      | Moncks Corner        |
| Thornton, C. C. (2 C)        | Union                |
| Tibbs, J. H. (4 ME)          | Great Falls          |
| Timmerman, R. P. (1 T)†      | Vaulcule             |
| Timmons, C. T. (1 T)†        | Abbeville            |
| Tisdale, C. F. (1 A)†        | Orangeburg           |
| Todd, R. (2 V Ag Ed)         | Loris                |
| Todd, W. P. (4 TC)           | Laurens              |
| Tolbert, G. E. (2 T)         | Greenwood            |
| Toncray, J. H. (1 T)†        | Johnson City, Tenn.  |
| Townsend, C. R. (1 A)†       | Blenheim             |
| Townsend, J. C. (1 GS)†      | Columbia             |
| Townsend, J. R. (2 V Ag Ed)  | Blenheim             |
| Trammell, W. V. (1 E)†       | Anderson             |
| Traywick, H. V. (3 I Ed)     | Cameron              |
| Trexler, B. D. (1 T)         | Greenville           |
| Triplett, C. H. (2 Ag Engr)  | Chester              |
| Trobaugh, A. K. (1 E)†       | Anderson             |
| Trobaugh, H. E. (1 GS)†      | Anderson             |
| Troy, H. P. (3 GS)           | Elloree              |
| Truesdale, J. M. (1 V Ag Ed) | Kershaw              |
| Truluck, J. H. (4 Ar)        | Lynchburg            |
| Truluck, J. W. (2 V Ag Ed)   | Coward               |
| Truluck, L. L. (1 E)†        | Timmons              |
| Tupper, M. W. (1 Ag Engr)†   | Washington, D. C.    |
| Turner, A. N. (1 E)†         | Reidsville, N. C.    |
| Turner, C. A. (1 T)†         | Fort Mill            |
| Turner, G. M. (2 TC)         | Greenville           |
| Turner, N. J. (2 A)          | White Hall           |
| Turner, W. C. (1 E)†         | Piedmont             |
| Vance, Z. (4 Hort)           | Owings               |
| Van Wyck, W. O. (2 E)        | Covina, Cal.         |
| Varn, J. D. (4 ME)           | Charleston           |
| Vassey, H. M. (2 V Ag Ed)    | Chesnee              |
| Vaughan, C. L. (3 Ar)        | Clinton              |
| Vereen, L. C. (1 E)†         | Latta                |
| Vereen, T. L. (4 Hort)       | Latta                |
| Verner, A. C. (4 WD)         | Piedmont             |
| Vicaria, J. (2 T)            | New York, N. Y.      |
| Vickery, J. B. (1 V Ag Ed)†  | Central              |
| Vickery, K. N. (4 GS)        | Anderson             |
| Vickery, V. V. (3 V Ag Ed)   | Central              |
| Vincent, C. A. (2 A)         | Lynchburg            |
| Von Hollen, J. M. (1 E)†     | Greenville           |
| Von Weller, G. S. (1 GS)†    | Albany, Ga.          |
| Wade, G. H. (4 Hort)         | Clemson              |
| Wade, W. B. (2 GS)           | Clinton              |
| Wakefield, J. B. (2 A)       | Iva                  |
| Walker, M. E. (1 A)†         | Rock Hill            |

| Name and Course             | Residence          |
|-----------------------------|--------------------|
| Walker, R. H. (1 E)†        | Appleton           |
| Wallace, J. W. (2 Ag Engr)  | Hamer              |
| Wallace, M. G. (1 T)†       | Laurens            |
| Walters, H. C. (1 E)†       | Darlington         |
| Wannamaker, R. C. (2 A)     | St. Matthews       |
| Ward, D. H. (1 A)†          | Salem              |
| Ward, H. E. (2 Ag Engr)     | Darlington         |
| Wardlaw, F. C. (4 Ag Engr)  | Belton             |
| Warner, C. T. (3 ME)        | Greenwood          |
| Warren, J. H. (1 GS)†       | Charleston         |
| Waters, A. R. (4 Ch Engr)   | Beaufort           |
| Waters, G. H. (2 T)         | Johnston           |
| Waters, L. E. (3 WD)        | Bamberg            |
| Watkins, R. E. (4 GS)       | Pendleton          |
| Watson, J. D. (3 Agr)       | Florence           |
| Watson, J. F. (1 E)†        | Greenwood          |
| Watson, P. S. (3 V Ag Ed)   | Ridge Spring       |
| Watson, R. H. (1 V Ag Ed)†  | Enoree             |
| Watson, R. W. (3 EE)        | Spartanburg        |
| Way, W. A. (4 EE)           | Clemson            |
| Wearn, W. C. (1 E)†         | Newberry           |
| Weatherford, J. E. (1 A)†   | Pinopolis          |
| Weaver, A. E. (1 E)†        | Jacksonville, Fla. |
| Webb, B. L. (2 CE)          | Beaufort           |
| Webb, G. R. (1 CE)          | Saluda             |
| Webb, H. N. (2 Ar)          | Anderson           |
| Webb, H. W. (1 E)†          | Saluda             |
| Webb, L. (1 E)              | Bishopville        |
| Webb, R. E. (1 E)†          | Edgefield          |
| Webster, S. R. (1 E)†       | Mullins            |
| Webster, W. A. (1 V Ag Ed)  | Loris              |
| Weeks, R. L. (1 E)†         | St. George         |
| Weeks, W. G. (1 Ag Engr)†   | Lone Star          |
| Welch, J. L. (1 Ag Engr)†   | Turbeville         |
| Welch, R. W. (1 E)†         | Kingstree          |
| Wells, E. D. (S)            | Clemson            |
| Wells, F. E. (2 V Ag Ed)    | Greenwood          |
| Wendt, D. T. (4 T)          | Clemson            |
| Wentzel, D. B. (1 E)†       | Clemson            |
| West, E. C. (2 V Ag Ed)     | Conway             |
| West, T. P. (2 T)           | Greenville         |
| Wever, L. R. (4 GS)         | Savannah, Ga.      |
| Wham, G. S. (1 T)†          | Clinton            |
| Wheeler, E. A. (2 T)        | Columbia           |
| Wheeler, C. K. (S)†         | Prosperity         |
| Wheeler, G. A. (1 A)†       | Spartanburg        |
| Wheeler, G. C. (1 A)†       | Saluda             |
| Wheeler, J. J. (1 A)        | Saluda             |
| Wheeler, R. F. (1 V Ag Ed)† | Batesburg          |
| Whisenant, J. E. (1 E)†     | Spartanburg        |
| Whisnant, C. L. (2 TC)      | Charlotte, N. C.   |
| White, J. F. (1 GS)†        | Greenwich, Conn.   |
| White, S. W. (1 GS)†        | Saluda             |
| Whitehead, H. C. (2 T)      | Graniteville       |
| Whitehead, J. B. (1 E)†     | Graniteville       |
| Whitesell, C. H. (1 GS)†    | Blacksburg         |
| Whitlock, F. M. (3 V Ag Ed) | Easley             |
| Whitmire, A. P. (3 EE)      | Six Mile           |
| Whitmire, F. W. (2 GS)      | Easley             |
| Whitney, J. T. (2 I Ed)     | Union              |
| Whitten, F. C. (1 T)†       | Pendleton          |
| Wicker, L. P. (2 E)†        | Newberry           |
| Wigington, W. H. (1 E)†     | Anderson           |
| Wiles, W. C. (3 GS)         | Columbia           |
| Wilheit, T. T. (4 TC)       | Saluda             |
| Wilkinson, J. C. (4 GS)     | Spartanburg        |
| Wilks, J. L. (3 Ch Engr)    | Charleston         |
| Willard, J. H. (1 E)†       | Buffalo            |
| Williams, A. V. (2 C)       | Charleston         |
| Williams, G. M. (3 C)†      | Walterboro         |
| Williams, J. B. (4 V Ag Ed) | Dacusville         |
| Williams, J. C. (1 A)       | Norway             |
| Williams, S. B. (2 V Ag Ed) | Greer              |



| Name and Course            | Residence        | Name and Course               | Residence           |
|----------------------------|------------------|-------------------------------|---------------------|
| Williams, W. B. (1 GS)†    | Holly Hill       | Woodside, W. E. (1 T)†        | Gray Court          |
| Williams, W. C. (1 E)†     | Swansea          | Woodward, Jesse E. (1 E)†     | Conway              |
| Williamson, C. A. (4 GS)   | Ridgewood, N. J. | Woodward, Joe E. (1 E)†       | Greenville          |
| Williamson, L. A. (3 ME)   | Ridgewood, N. J. | Woodward, L. J. (2 E)         | Anderson            |
| Willingham, B. E. (1 T)    | Greenville       | Woody, R. E. (2 E)            | Charleston          |
| Willis, D. J. (2 GS)       | Travelers Rest   | Wootan, L. A. (1 A)           | Smiths Turn Out     |
| Willis, J. W. (1 T)†       | Lynchburg        | Workman, W. D. (1 E)†         | Clinton             |
| Willis, Z. G. (3 T)        | Spartanburg      | Wray, C. V. (S)               | Clemson             |
| Wilson, C. L. (1 V Ag Ed)† | Fort Mill        | Wright, C. R. (1 GS)†         | Gastonia, N. C.     |
| Wilson, E. F. (1 E)†       | Abbeville        | Wright, J. E. (4 V Ag Ed)     | Woodruff            |
| Wilson, E. H. (1 V Ag Ed)† | Blythewood       | Wright, L. C. (3 ME)†         | Columbia            |
| Wilson, H. B. (1 T)†       | Abbeville        | Wright, M. E. (2 E)           | Fredericksburg, Va. |
| Wilson, H. M. (1 T)†       | Sumter           | Wyant, Y. W. (3 V Ag Ed)      | Ninety Six          |
| Wilson, H. S. (1 E)†       | Calhoun Falls    | Wyndham, F. E. (1 E)†         | Moncks Corner       |
| Wilson, J. S. (1 V Ag Ed)† | Cades            | Wyse, J. F. (4 V Ag Ed)       | Columbia            |
| Wilson, W. C. (1 A)†       | Columbia         |                               |                     |
| Wily, R. R. (1 E)†         | Bethlehem, Penn. | Yarborough, B. H. (2 C)       | Winnsboro           |
| Winburn, J. D. (1 A)†      | Hartsville       | Yarborough, L. I. (4 V Ag Ed) | Scranton            |
| Windell, E. V. (1 A)       | Fort Mill        | Yard, S. K. (1 E)†            | Seneca              |
| Windham, J. M. (3 ME)      | Edisto Island    | Yelton, L. M. (2 A)           | Eastover            |
| Winfield, J. A. (2 E)      | Clemson          | Young, Edward L. (1 A)†       | Timmons ville       |
| Wise, W. R. (3 EE)         | Newberry         | Young, Ernest L. (3 EE)       | Fairfax             |
| Witherspoon, R. G. (4 GS)  | Anderson         | Young, T. B. (3 Ag Ec)        | Florence            |
| Wolfe, J. W. (1 A)†        | Orangeburg       |                               |                     |
| Wolfe, R. S. (3 CE)        | Orangeburg       | Zalants, E. L. (3 C)          | Greenville          |
| Wood, F. A. (1 T)†         | Newberry         | Zeigler, C. M. (2 T)          | St. Matthews        |
| Wood, W. D. (2 A)          | Bennettsville    | Zeigler, J. D. (2 I Ed)       | Columbia            |
| Woodhead, H. A. (4 TC)     | Graniteville     | Zeigler, J. S. (1 E)†         | Florence            |
| Woods, C. (3 ME)           | Burton           | Zeigler, W. B. (3 I Ed)       | Florence            |
| Woods, T. D. (2 E)†        | Fort Mill        | Zerbst, H. C. (1 A)†          | Charleston          |

## NUMBER OF STUDENTS MAJORING IN EACH CURRICULUM

## First Semester 1937-1938

| Class     | Agriculture | Agricultural Engineering | Chemistry | Architecture | Engineering Unclassified | Electrical Engineering | Mechanical Engineering | Electrical and Mechanical Engineering | Chemical Engineering | Civil Engineering | General Science | Textile Engineering | Textile Chemistry and Dyeing | Weaving and Designing | Vocational Agricultural Education | Education | Industrial Education | Textile Industrial Education | Enrollment by Classes |     |
|-----------|-------------|--------------------------|-----------|--------------|--------------------------|------------------------|------------------------|---------------------------------------|----------------------|-------------------|-----------------|---------------------|------------------------------|-----------------------|-----------------------------------|-----------|----------------------|------------------------------|-----------------------|-----|
| Senior    | *42         | 10                       | 7         | 5            |                          | 20                     | 19                     | 1                                     | 14                   | 8                 |                 | 37                  | 30                           | 12                    | 5                                 | *28       | 3                    | 3                            | 2                     | 245 |
| Junior    | 57          | 8                        | **10      | 16           |                          | 31                     | 29                     | 2                                     | 6                    | 19                |                 | **44                | 44                           | 6                     | 2                                 | 45        | 2                    | 16                           | 2                     | 338 |
| Sophomore | 55          | 15                       | 17        | 19           | 109                      |                        |                        |                                       | 16                   | 27                |                 | 66                  | 71                           | 17                    | 7                                 | 82        | 1                    | 13                           |                       | 515 |
| Freshman  | 106         | 31                       | 14        | 21           | 256                      |                        |                        |                                       |                      |                   |                 | 67                  | 170                          |                       |                                   | 84        | 5                    | 3                            | 3                     | 760 |
| Special   |             |                          |           |              |                          |                        |                        |                                       |                      |                   |                 |                     |                              |                       |                                   |           |                      |                              |                       | 19  |
| Totals    | *260        | 64                       | **48      | 61           | 365                      | 51                     | 48                     | 3                                     | 36                   | 54                | **214           | 315                 | 35                           | 14                    | *239                              | 11        | 35                   | 7                            | 1877                  |     |

\*Includes one student registered in both Agriculture and Vocational Agricultural Education.

\*\*Includes one student registered in both Chemistry and General Science.



## ENROLLMENT BY COUNTIES AND STATES

FIRST SEMESTER 1937-1938

| <i>County</i>              | <i>Total</i> | <i>State or Country</i>    | <i>Total</i> |
|----------------------------|--------------|----------------------------|--------------|
| Abbeville -----            | 28           | Alabama -----              | 6            |
| Aiken -----                | 35           | California -----           | 1            |
| Allendale -----            | 17           | Connecticut -----          | 5            |
| Anderson -----             | 129          | Cuba -----                 | 1            |
| Bamberg -----              | 17           | Delaware -----             | 1            |
| Barnwell -----             | 16           | District of Columbia ----- | 1            |
| Beaufort -----             | 21           | Florida -----              | 14           |
| Berkeley -----             | 9            | Georgia -----              | 41           |
| Calhoun -----              | 24           | Maine -----                | 2            |
| Charleston -----           | 99           | Maryland -----             | 1            |
| Cherokee -----             | 25           | Massachusetts -----        | 1            |
| Chester -----              | 34           | New Hampshire -----        | 1            |
| Chesterfield -----         | 25           | New Jersey -----           | 13           |
| Clarendon -----            | 15           | New York -----             | 5            |
| Colleton -----             | 30           | North Carolina -----       | 52           |
| Darlington -----           | 37           | Ohio -----                 | 1            |
| Dillon -----               | 20           | Panama -----               | 1            |
| Dorchester -----           | 18           | Pennsylvania -----         | 10           |
| Edgefield -----            | 18           | Rhode Island -----         | 1            |
| Fairfield -----            | 18           | South Carolina -----       | 1707         |
| Florence -----             | 69           | Tennessee -----            | 7            |
| Georgetown -----           | 13           | Virginia -----             | 3            |
| Greenville -----           | 125          | West Virginia -----        | 2            |
| Greenwood -----            | 58           |                            |              |
| Hampton -----              | 23           | Grand Total -----          | 1877         |
| Horry -----                | 23           |                            |              |
| Jasper -----               | 10           |                            |              |
| Kershaw -----              | 23           |                            |              |
| Lancaster -----            | 14           |                            |              |
| Laurens -----              | 37           |                            |              |
| Lee -----                  | 27           |                            |              |
| Lexington -----            | 23           |                            |              |
| Marion -----               | 38           |                            |              |
| Marlboro -----             | 24           |                            |              |
| McCormick -----            | 5            |                            |              |
| Newberry -----             | 30           |                            |              |
| Oconee -----               | 80           |                            |              |
| Orangeburg -----           | 57           |                            |              |
| Pickens -----              | 69           |                            |              |
| Richland -----             | 81           |                            |              |
| Saluda -----               | 20           |                            |              |
| Spartanburg -----          | 97           |                            |              |
| Sumter -----               | 23           |                            |              |
| Union -----                | 30           |                            |              |
| Williamsburg -----         | 22           |                            |              |
| York -----                 | 42           |                            |              |
| Total—South Carolina ----- | 1707         |                            |              |

*\*SUPPLEMENTARY LIST OF STUDENTS, SECOND SEMESTER, 1937-1938*

|                                      |                   |                                   |              |
|--------------------------------------|-------------------|-----------------------------------|--------------|
| Ambrose, L. R. (3 ME)-----           | Plantersville     | McCallum, L. H. (4 V Ag Ed)†----- | Lugoff       |
| Bailes, L. C. (3 GS)†-----           | Anderson          | McNinch, J. L. (1 E)-----         | Greenwood    |
| Beckett, J. T. (1 E)†-----           | Johns Island      | McLendon, E. K. (1 E)†-----       | Greenville   |
| Betts, G. (1 GS)†-----               | Pittsfield, Mass. | Marshall, J. L. (S)-----          | Clemson      |
| Biggerstaff, S. C. (1 V Ag Ed)†----- | Seneca            | Martin, Earl E. (2 T)-----        | Greenville   |
| Bowers, G. F. (1 GS)†-----           | Luray             | Myers, J. H. (2 E)-----           | Oakway       |
| Burton, R. H. (3 TE)-----            | Anderson          | Newman, B. F. (3 I Ed)-----       | Central      |
| Dillard, T. W. (4 V Ag Ed)-----      | Pickens           | Newton, P. (2 I Ed)†-----         | Central      |
| Dunn, A. B. (2 Ch Engr)†-----        | Bethlehem, Penn.  | Osteen, M. V. (1 GS)-----         | Anderson     |
| Fleming, F. M. (2 A)-----            | Lanford           | Pettigrew, J. C. (1 GS)-----      | Hodges       |
| Graves, J. L. (1 V Ag Ed)-----       | Ravenel           | Rhodes, R. E. (2 GS)†-----        | Estill       |
| Harris, M. E. (1 V Ag Ed)-----       | Harlan, Ky.       | Riddick, P. A. (1 A)-----         | Marion       |
| Hill, D. K. (1 A)-----               | Effingham         | Rogers, W. S. (1 Ch Engr)†-----   | Columbia     |
| Holstein, R. H. (S)-----             | Monetta           | Smith, R. D. (2 V Ag Ed)†-----    | Bowman       |
| Jones, H. E. (2 E)†-----             | Pickens           | Upchurch, H. B. (S)†-----         | Athens, Ga.  |
| Kee, J. M. (3 EE)-----               | Rock Hill         | Wham, A. R. (S)-----              | Simpsonville |
| Lord, L. T. (3 GS)-----              | Laughman, Fla.    | Wingate, T. E. (1 GS)†-----       | Rock Hill    |
| McCabe, T. G. (2 ME)-----            | Kingstree         |                                   |              |

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\*Students enrolled for the second semester who were not enrolled for the first semester. In this list, students are classified according to their credits at the beginning of the second semester; new students admitted at the beginning of the second semester are indicated by a dagger (†).

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*Office*  
Mr. R. E. Lee  
Engineering Building  
Clemson College

New Series, Vol. XIV, March, 1939

No. 1

# THE CLEMSON AGRICULTURAL COLLEGE

—  
RECORD  
FORTY-SIXTH YEAR  
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1939

| JANUARY |    |    |    |    |    |    |
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| FEBRUARY |    |    |    |    |    |    |
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| 23    | 24 | 25 | 26 | 27 | 28 | 29 |
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| MAY |    |    |    |    |    |    |
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| 21  | 22 | 23 | 24 | 25 | 26 | 27 |
| 28  | 29 | 30 | 31 |    |    |    |

| JUNE |    |    |    |    |    |    |
|------|----|----|----|----|----|----|
| S    | M  | T  | W  | T  | F  | S  |
|      |    |    |    | 1  | 2  | 3  |
| 4    | 5  | 6  | 7  | 8  | 9  | 10 |
| 11   | 12 | 13 | 14 | 15 | 16 | 17 |
| 18   | 19 | 20 | 21 | 22 | 23 | 24 |
| 25   | 26 | 27 | 28 | 29 | 30 |    |

| JULY |    |    |    |    |    |    |
|------|----|----|----|----|----|----|
| S    | M  | T  | W  | T  | F  | S  |
|      |    |    |    |    |    | 1  |
| 2    | 3  | 4  | 5  | 6  | 7  | 8  |
| 9    | 10 | 11 | 12 | 13 | 14 | 15 |
| 16   | 17 | 18 | 19 | 20 | 21 | 22 |
| 23   | 24 | 25 | 26 | 27 | 28 | 29 |
| 30   | 31 |    |    |    |    |    |

| AUGUST |    |    |    |    |    |    |
|--------|----|----|----|----|----|----|
| S      | M  | T  | W  | T  | F  | S  |
|        |    | 1  | 2  | 3  | 4  | 5  |
| 6      | 7  | 8  | 9  | 10 | 11 | 12 |
| 13     | 14 | 15 | 16 | 17 | 18 | 19 |
| 20     | 21 | 22 | 23 | 24 | 25 | 26 |
| 27     | 28 | 29 | 30 | 31 |    |    |

| SEPTEMBER |    |    |    |    |    |    |
|-----------|----|----|----|----|----|----|
| S         | M  | T  | W  | T  | F  | S  |
|           |    |    |    |    |    | 1  |
| 3         | 4  | 5  | 6  | 7  | 8  | 9  |
| 10        | 11 | 12 | 13 | 14 | 15 | 16 |
| 17        | 18 | 19 | 20 | 21 | 22 | 23 |
| 24        | 25 | 26 | 27 | 28 | 29 | 30 |

| OCTOBER |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| S       | M  | T  | W  | T  | F  | S  |
|         | 1  | 2  | 3  | 4  | 5  | 6  |
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| 15      | 16 | 17 | 18 | 19 | 20 | 21 |
| 22      | 23 | 24 | 25 | 26 | 27 | 28 |
| 29      | 30 | 31 |    |    |    |    |

| NOVEMBER |    |    |    |    |    |    |
|----------|----|----|----|----|----|----|
| S        | M  | T  | W  | T  | F  | S  |
|          |    |    |    | 1  | 2  | 3  |
| 5        | 6  | 7  | 8  | 9  | 10 | 11 |
| 12       | 13 | 14 | 15 | 16 | 17 | 18 |
| 19       | 20 | 21 | 22 | 23 | 24 | 25 |
| 26       | 27 | 28 | 29 | 30 |    |    |

| DECEMBER |    |    |    |    |    |    |
|----------|----|----|----|----|----|----|
| S        | M  | T  | W  | T  | F  | S  |
|          |    |    |    |    |    | 1  |
| 3        | 4  | 5  | 6  | 7  | 8  | 9  |
| 10       | 11 | 12 | 13 | 14 | 15 | 16 |
| 17       | 18 | 19 | 20 | 21 | 22 | 23 |
| 24       | 25 | 26 | 27 | 28 | 29 | 30 |
| 31       |    |    |    |    |    |    |

1940

| JANUARY |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| S       | M  | T  | W  | T  | F  | S  |
|         |    |    |    |    |    |    |
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| 14      | 15 | 16 | 17 | 18 | 19 | 20 |
| 21      | 22 | 23 | 24 | 25 | 26 | 27 |
| 28      | 29 | 30 | 31 |    |    |    |

| FEBRUARY |    |    |    |    |    |    |
|----------|----|----|----|----|----|----|
| S        | M  | T  | W  | T  | F  | S  |
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| 18       | 19 | 20 | 21 | 22 | 23 | 24 |
| 25       | 26 | 27 | 28 | 29 |    |    |

| MARCH |    |    |    |    |    |    |
|-------|----|----|----|----|----|----|
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| 17    | 18 | 19 | 20 | 21 | 22 | 23 |
| 24    | 25 | 26 | 27 | 28 | 29 | 30 |
| 31    |    |    |    |    |    |    |

| APRIL |    |    |    |    |    |    |
|-------|----|----|----|----|----|----|
| S     | M  | T  | W  | T  | F  | S  |
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| 14    | 15 | 16 | 17 | 18 | 19 | 20 |
| 21    | 22 | 23 | 24 | 25 | 26 | 27 |
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| MAY |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|
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| 19  | 20 | 21 | 22 | 23 | 24 | 25 |
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| JUNE |    |    |    |    |    |    |
|------|----|----|----|----|----|----|
| S    | M  | T  | W  | T  | F  | S  |
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| 16   | 17 | 18 | 19 | 20 | 21 | 22 |
| 23   | 24 | 25 | 26 | 27 | 28 | 29 |
| 30   |    |    |    |    |    |    |

| JULY |    |    |    |    |    |    |
|------|----|----|----|----|----|----|
| S    | M  | T  | W  | T  | F  | S  |
|      |    |    |    |    |    |    |
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| 14   | 15 | 16 | 17 | 18 | 19 | 20 |
| 21   | 22 | 23 | 24 | 25 | 26 | 27 |
| 28   | 29 | 30 | 31 |    |    |    |

| AUGUST |    |    |    |    |    |    |
|--------|----|----|----|----|----|----|
| S      | M  | T  | W  | T  | F  | S  |
|        |    |    |    |    |    |    |
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| 11     | 12 | 13 | 14 | 15 | 16 | 17 |
| 18     | 19 | 20 | 21 | 22 | 23 | 24 |
| 25     | 26 | 27 | 28 | 29 | 30 | 31 |

| SEPTEMBER |    |    |    |    |    |    |
|-----------|----|----|----|----|----|----|
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| 8         | 9  | 10 | 11 | 12 | 13 | 14 |
| 15        | 16 | 17 | 18 | 19 | 20 | 21 |
| 22        | 23 | 24 | 25 | 26 | 27 | 28 |
| 29        | 30 |    |    |    |    |    |

| OCTOBER |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| S       | M  | T  | W  | T  | F  | S  |
|         |    |    |    |    |    |    |
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| 13      | 14 | 15 | 16 | 17 | 18 | 19 |
| 20      | 21 | 22 | 23 | 24 | 25 | 26 |
| 27      | 28 | 29 | 30 | 31 |    |    |

| NOVEMBER |    |    |    |    |    |    |
|----------|----|----|----|----|----|----|
| S        | M  | T  | W  | T  | F  | S  |
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| 10       | 11 | 12 | 13 | 14 | 15 | 16 |
| 17       | 18 | 19 | 20 | 21 | 22 | 23 |
| 24       | 25 | 26 | 27 | 28 | 29 | 30 |

| DECEMBER |    |    |    |    |    |    |
|----------|----|----|----|----|----|----|
| S        | M  | T  | W  | T  | F  | S  |
|          |    |    |    |    |    |    |
| 1        | 2  | 3  | 4  | 5  | 6  | 7  |
| 8        | 9  | 10 | 11 | 12 | 13 | 14 |
| 15       | 16 | 17 | 18 | 19 | 20 | 21 |
| 22       | 23 | 24 | 25 | 26 | 27 | 28 |
| 29       | 30 | 31 |    |    |    |    |

# COLLEGE CALENDAR

## SECOND SEMESTER 1938-1939

|                                |            |
|--------------------------------|------------|
| Registration, Second Semester  | February 6 |
| Final College Examinations end | May 27     |
| Commencement Exercises begin   | June 3     |
| Graduating Exercises           | June 5     |
| Summer School begins           | June 12    |
| Summer School ends             | July 22    |

## SESSION 1939-1940

|                                            |                     |
|--------------------------------------------|---------------------|
| Entrance Examinations                      | September 11 and 12 |
| Matriculation, new students                | September 13        |
| First payment due Treasurer, new students  | September 13*       |
| Matriculation, upperclassmen               | September 18        |
| First payment due Treasurer, upperclassmen | September 18*       |
| Registration, upperclassmen                | September 19        |
| Second payment due Treasurer, all students | November 23*        |
| Thanksgiving Day (holiday)                 | November 30         |
| Christmas Holidays begin at 12 Noon        | December 20         |
| Christmas Holidays end at 10 P.M.          | January 2           |
| First Semester ends                        | February 3          |
| Third payment due Treasurer, all students  | February 5*         |
| Registration, Second Semester              | February 5          |
| Mid-Year Graduating Exercises              | February 6          |
| Fourth Payment due Treasurer, all students | April 5*            |
| Final College Examinations end             | May 25              |
| Commencement Exercises begin               | June 1              |
| Graduating Exercises                       | June 3              |

The above schedule is subject to change by the Faculty.

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\*Important Note: Settlement of College Fees. The Treasurer of the College is the financial officer, and all transactions relating to payments must be made through him. The entrance payment includes the full cost of uniform, plus fees and living expenses for the first quarter, and must be paid before a student can be assigned to a room in barracks. Other payments are due quarterly in advance as indicated above. A quarterly payment deferred by virtue of reason satisfactory to the Treasurer may be extended at the discretion of the Treasurer for a period not exceeding twenty days. At the expiration of this grace period, the names of those in arrears will be automatically removed from the college rolls.

Remittances should be made in cash, by money order, cashier's check, or local check made payable to S. W. Evans, Treasurer, and should be paid at the Treasurer's Office or mailed directly to S. W. Evans, Treasurer, Clemson, South Carolina.

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# BOARD OF TRUSTEES

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## LIFE MEMBERS

|                                |                               |
|--------------------------------|-------------------------------|
| W. W. BRADLEY, <i>Chairman</i> | Columbia, Richland County     |
| A. F. LEVER                    | Columbia, Richland County     |
| PAUL SANDERS                   | Ritter, Colleton County       |
| J. E. SIRRINE                  | Greenville, Greenville County |
| CHRISTIE BENET                 | Columbia, Richland County     |
| T. B. YOUNG                    | Florence, Florence County     |
| R. M. COOPER                   | Charleston, Charleston County |

## TERM EXPIRES 1940

|                    |                            |
|--------------------|----------------------------|
| F. E. COPE         | Cope, Orangeburg County    |
| W. D. BARNETT      | Columbia, Richland County  |
| J. B. DOUTHIT, JR. | Pendleton, Anderson County |

## TERM EXPIRES 1942

|                |                              |
|----------------|------------------------------|
| S. H. SHERARD  | Ninety Six, Greenwood County |
| W. C. GRAHAM   | Pamplico, Florence County    |
| EDGAR A. BROWN | Barnwell, Barnwell County    |

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|                               |                |
|-------------------------------|----------------|
| S. W. EVANS, <i>Secretary</i> | Clemson, S. C. |
|-------------------------------|----------------|

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## STANDING COMMITTEES OF BOARD

AGRICULTURAL: Sherard, *Chairman*; Young, Cooper, Lever, Sanders, Cope, Douthit.

(This committee is also the Veterinary Committee, the Crop Pest Commission, and the Experiment Station Board of Control.)

EXECUTIVE: Benet, *Chairman*; SIRRINE, Young, Cooper, Brown, Graham.

FERTILIZER: Cope, *Chairman*; Sherard, Sanders, Barnett, Douthit, Graham.

\*FINANCE: Benet, SIRRINE, Lever, Brown, Barnett, Douthit.

## STATED MEETINGS OF BOARD

3:00 P.M.—Third Friday in March.

3:00 P.M.—Third Friday in June.

3:00 P.M.—Fourth Monday in October.

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\*Chairman to be elected.

## BOARD OF VISITORS 1938

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|                    |            |
|--------------------|------------|
| A. E. Jury         | Winnsboro  |
| (Hold-over member) |            |
| Adam Haskell       | Beaufort   |
| Burnet R. Maybank  | Charleston |
| J. R. Fairey       | Fort Motte |
| J. F. Bland        | Mayesville |
| W. D. Morrah       | Troy       |
| C. L. Cureton      | Pickens    |
| L. M. Glenn        | Greenville |
| P. D. Barron       | Union      |
| M. E. Brockman     | Chester    |
| George J. Wilds    | Hartsville |
| D. D. Witcover     | Darlington |

## OFFICERS CLEMSON ALUMNI CORPORATION

---

### *President*

Louis Balentine, '23.....Greenville, S. C.

### *First Vice-President*

B. B. Bleckley, '28.....Anderson, S. C.

### *Second Vice-President*

W. R. Elliott, Jr., '26.....Winnsboro, S. C.

### *Secretary-Treasurer*

J. H. Woodward, Ex. '03.....Clemson, S. C.

### *Assistant Treasurer*

S. W. Evans, Ex. '02.....Clemson, S. C.

### *Board of Directors*

|                   |                            |                    |
|-------------------|----------------------------|--------------------|
| District 1        | —B. B. Bleckley, '28       | Anderson           |
| District 2        | —W. K. Livingston, Ex. '97 | Greenville         |
| District 3        | —W. R. Elliott, Jr., '26   | Winnsboro          |
| District 4        | —J. S. Thurmond, '23       | Edgefield          |
| District 5        | —W. D. Barnett, '10        | Columbia           |
| District 6        | —George Warren, '08        | Hampton            |
| District 7        | —C. W. Legerton, '03       | Charleston         |
| District 8        | —J. T. Lazar, '12          | Florence           |
| District 9        | —R. H. Fike, '08           | Atlanta, Ga.       |
| District 10       | —F. J. Jervy, '14          | Washington, D. C.  |
| District 11       | —S. R. Finley, '18         | Chattanooga, Tenn. |
| District 12       | —Frank Breazeale, '96      | Tucson, Ariz.      |
| Director at Large | —T. W. Thornhill, '14      | Charleston         |
| Director at Large | —R. B. Waters, '16         | Columbia           |
| Director at Large | —Louis Balentine, '23      | Greenville         |

## OFFICERS OF ADMINISTRATION

---

ENOCH WALTER SIKES, PH.D., LL.D.  
*President*

CHARLES WARREN WEEKS, COLONEL, INFANTRY, U. S. ARMY  
*Commandant and P. M. S. and T.*

SAMUEL WILDS EVANS  
*Treasurer and Secretary of Board of Trustees*

JAMES CORCORAN LITTLEJOHN, B.S.  
*Business Manager*

LEE W. MILFORD, M.D.  
*Surgeon*

GUSTAVE ERNEST METZ, B.S., M.A.  
*Registrar*

HERBERT PRESS COOPER, PH.D.  
*Dean, School of Agriculture and  
Director, Agricultural Experiment Station*

WILLIAM BARRE AULL, B.S.  
*Vice-Dean, School of Agriculture*

RUPERT ALONZO MCGINTY, B.S., A.M.  
*Vice-Director, Agricultural Experiment Station*

FRED HARVEY HALL CALHOUN, PH.D.  
*Dean, School of Chemistry*

DAVID WISTAR DANIEL, A.M., Litt.D.  
*Dean, School of General Science*

SAMUEL BROADUS EARLE, A.M., M.E., LL.D.  
*Dean, School of Engineering*

WILLIAM HAROLD WASHINGTON, B.S., M.S.  
*Dean, School of Vocational Education and  
Dean of the Summer School*

HORACE HAROLD WILLIS, B.S.  
*Dean, School of Textiles*

BRUCE DAYVAULT CLOANINGER  
*Secretary, Board of Fertilizer Control*

WALTER KEYS LEWIS, V.S., M.D.V.\*  
*Director of Livestock Sanitary Work, State Veterinarian*

DAVID WAYNE WATKINS, B.S., M.A.  
*Director of Extension Service*

CORNELIA AYER GRAHAM, B.S.  
*Librarian*

---

\*Office: State Office Building, Columbia, S. C.

# FACULTY

---

## ENOCH WALTER SIKES

*President*

M.A., Wake Forest College; Ph.D., Johns Hopkins University.

---

ANDERSON, ROBERT LOVELL, *Associate Professor of Architecture.*

A.B., Princeton University, 1925; Graduate Work, Columbia University, 1925-1926; Harvard University, 1929-1930; Summer Work, New York University, 1936.

\*ANDREWS, FLOOD SHIELDS, *Associate Professor of Horticulture.*

B.S., Virginia Polytechnic Institute, 1924; M.S., Michigan State College, 1928.

ARMSTRONG, GEORGE MILLER, *Professor of Botany and Bacteriology.*

B.S., Clemson Agricultural College, 1914; M.A., University of Wisconsin, 1917; Ph.D., Missouri Botanical Garden, Washington University, 1921.

AULL, GEORGE HUBERT, *Professor of Agricultural Economics.*

B.S., Clemson Agricultural College, 1919; M.S., University of Virginia, 1928; Ph.D., University of Wisconsin, 1937.

AULL, WILLIAM BARRE, *Vice-Dean, School of Agriculture; Associate Professor of Bacteriology.*

B.S., Clemson Agricultural College, 1907; Graduate Work, University of Virginia, 1909-1910; Iowa State College, Summers 1925, 1927.

BARNETT, DAVID EUGENE, *Assistant Professor of Military Science and Tactics; Assistant Commandant.*

Major, Infantry, U. S. Army; B.S., Clemson Agricultural College, 1915; Graduate, The Infantry School, 1921.

BARTON, CLARENCE RUSSELL, *Assistant Professor of Weaving and Designing.*

B.S., Clemson Agricultural College, 1929.

BLAIR, WILLIAM GARDINER, *Assistant Professor of Carding.*

New Bedford Textile School, 1908.

BOOKER, LEONARD ROWLAND, *Itinerant Teacher-Trainer and Assistant State Supervisor Industrial Education.*

B.S., Clemson Agricultural College, 1925; Graduate Work, University of Chicago, 1927; M.S., University of Tennessee, 1932.

BOWEN, WILLIAM CLAYTON, *Assistant Professor of Agricultural Education.*

B.S., Clemson Agricultural College, 1932; Colorado State College, Summers 1937, 1938.

BRADLEY, MARK EDWARD, *Professor of English.*

A.B., Erskine College, 1898; Graduate Work, University of Chicago, Summers 1904, 1910; University of North Carolina, Summer 1927.

BREARLEY, HARRINGTON COOPER, *Professor of Sociology and Psychology.*

A.B., 1916, M.A., 1917, University of South Carolina; Ph.D., University of North Carolina, 1928; Columbia University, Summer 1933; London School of Economics, 1937-1938.

BROCK, JOHN LELAND, *Assistant Professor of Vocational Education.*

B.S., Clemson Agricultural College, 1927; M.A., George Peabody College, 1936.

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\*On leave 1938-1939.



BROWN, HUGH MONROE, *Professor of Physics.*

B.A., 1920, M.A., 1921, University of Denver; Ph.D., University of California, 1927.

BURTON, WILLIAM WILDER, *Assistant Professor of Mathematics.*

Ph.B., Brown University, 1906; M.A., Mercer University, 1918.

CALHOUN, FRED HARVEY HALL, *Dean, School of Chemistry and Geology, Professor of Geology and Mineralogy.*

B.S., 1898, Ph.D., 1902, University of Chicago.

CAMPBELL, THOMAS ALEXANDER, JR., *Assistant Professor in Textiles.*

B.S., Clemson Agricultural College, 1928.

CARODEMOS, PETER, *Associate Professor of Chemistry.*

B.S., Tufts College, 1922; Ph.D., Cornell University, 1927.

CARTEE, EUGENE FRANKLIN, *Acting Associate Professor of Warp Preparation and Knitting.*

B.S., Clemson Agricultural College, 1925; M.S., University of Tennessee, 1937.

CLARKE, ELWYN LORENZO, *Professor of Civil Engineering.*

B.S. in C.E., 1902, C.E., 1931, University of Illinois.

COLLINGS, GILBEART HOOPER, *Associate Professor of Agronomy.*

B.S., Virginia Polytechnic Institute, 1915; M.S., University of Illinois, 1917; Ph.D., Rutgers University, 1925.

COOPER, HERBERT PRESS, *Dean, School of Agriculture; Director, Agricultural Experiment Station; Professor of Agronomy.*

B.S., Clemson Agricultural College, 1911; M.S., University of Wisconsin, 1916; Ph.D., Cornell University, 1922.

CRANDALL, WILL GILES, *Professor of Vocational Education.*

B.S., Cornell University, 1918; Graduate Work, Cornell University, Summers 1929, 1930, 1931.

\*CREDELE, ALEXANDER BERRY, *Assistant Professor of Electrical Engineering.*

E.E., 1930, M.E.E., 1931, Cornell University.

CROUCH, SYDNEY, J. L., *Professor of Religion.*

Scotch College, Western Australia, 1910; Biblical Seminary, New York, 1915; B.D., Hartford Theological Seminary, 1922; Th.D., Union Theological Seminary, Richmond, Virginia, 1937.

CURTIS, DONALD DEXTER, *Professor of Mechanics and Hydraulics.*

B.E., 1919, M.S., 1931, University of Iowa; Graduate Work, University of Washington.

DANIEL, DAVID WISTAR, *Dean, School of General Science, Professor of English.*

A.B., Wofford College, 1892; M.A., Vanderbilt University, 1901; Graduate Work, University of Chicago, Summer 1899; Litt.D., Wofford College, 1914.

DAVIS, JOE WALLACE, *Assistant Coach.*

B.S., Southwestern, 1929.

DUMAS, ALBERT HUGH, *Assistant Professor of Military Science and Tactics, Assistant Commandant and Adjutant.*

Major, Infantry, U. S. A.; B.S., Alabama Polytechnic Institute, 1917; Graduate, The Infantry School, 1926.

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\*On leave 1938-1939.

- DUNAVAN, DAVID, *Assistant Professor of Entomology and Zoology.*  
B.S., Oregon Agricultural College, 1925; M.S., Iowa State College, 1928;  
Graduate Work, Cornell University, Summers 1929, 1931, 1935.
- DUNLAP, GEORGE HEYWARD, *Acting Assistant Professor of Carding and Spinning.*  
B.S., Clemson Agricultural College, 1928; Graduate Work, University of North Carolina, Summer 1935; Massachusetts Institute of Technology, Summer 1936.
- EARLE, SAMUEL BROADUS, *Dean, School of Engineering, Professor of Mechanical Engineering, Director of Engineering Experiment Station.*  
A.B., 1898, A.M., 1899, Furman University; M.E., Cornell University, 1902; LL.D., Furman University, 1932; General Electric Company.
- EATON, ROBERT KNIGHT, *Professor of Carding and Spinning.*  
A.B., Bowdoin College, 1905; Graduate Work, Philadelphia Textile School.
- EDMOND, JOSEPH BAILEY, *Associate Professor of Horticulture.*  
B.S., Michigan State College, 1923; M.S., Iowa State College, 1924; Ph.D., University of Maryland, 1933.
- EDWARDS, GEORGE HERBERT, JR., *Assistant Professor of Mathematics.*  
B.A., 1913, M.A., University of South Carolina; Graduate Work, University of Chicago and Columbia University.
- FEELEY, ROBERT OLIVER, *Professor of Veterinary Science.*  
D.V.S., New York University, 1906.
- FERNOW, BERNHARD EDWARD, *Professor of Mechanical Engineering.*  
A.B., 1904, M.E., 1906, Cornell University.
- FERRIER, WALLACE THOMAS, *Associate Professor of Agricultural Economics.*  
A.B., Tarkio College, 1910; M.S., Colorado State College, 1930; Graduate work, University of Colorado; Ph.D., University of Minnesota, 1938.
- FITZ PATRICK, THOMAS KEVIN, *Assistant Professor of Architecture.*  
B.Arch., 1932, M.Arch., 1933, Massachusetts Institute of Technology; Graduate Research in Architectural Education, Massachusetts Institute of Technology, 1934.
- FREEMAN, EDWIN JONES, *Associate Professor of Machine Shop.*  
B.S., Clemson Agricultural College, 1922.
- \*FULMER, JOHN LEONARD, *Assistant Professor of Agricultural Economics.*  
B.S., Clemson Agricultural College, 1933; M.S., Cornell University, 1937.
- GAMMON, JAMES POLK, *Assistant Professor of Military Science and Tactics, Assistant Commandant.*  
Major, Infantry, U. S. A.; A.B., Fredericksburg College, 1913; Graduate Company Officers Course, The Infantry School, 1926.
- GATES, JAMES EDWARD, *Professor of Economics and Government.*  
B.S., University of Kentucky, 1929; Graduate Work, University of Kentucky, 1929-1930; University of Chicago, 1930-1931; University of Virginia, 1931-1933; Ph.D., University of Virginia, 1935.
- GLENN, HOWARD EMMITT, *Associate Professor of Civil Engineering.*  
B.S. in C.E., 1922, C.E., 1927, University of Kentucky.
- GODFREY, WILLIAM EMERA, *Professor of Physics.*  
A.B., 1893, A.M., 1898, Mercer University; Graduate Work, Summer Quarters 1898, 1899, 1900, University of Chicago; 1906-1907, Cornell University.

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\*On leave 1938-1939.

- GOODALE, BEN EDMUND, *Associate Professor of Dairying*.  
B.S., 1922, M.S., 1929, Iowa State College.
- GOODE, JOHN K., *Assistant Professor of Religion*.  
A.B., Richmond College, 1898; Graduate of Crozer Theological Seminary, 1901.
- GREEN, JOSEPH COLEMAN, *Assistant Professor of English*.  
B.A., 1920, M.A., 1924, Vanderbilt University; Graduate Work, George Peabody College for Teachers, Summers 1930, 1932, 1934; Ph.D., Vanderbilt University, 1937.
- HARRIS, DAVID NIVIN, *Assistant Professor of Drawing*.  
B.S., Clemson Agricultural College, 1908.
- HENDRICKS, JESSE CODY, *Associate Professor of Physics*.  
B.S., 1925, M.A., 1928, Franklin College; Ph.D., Indiana University, 1930.
- HODGE, WYLIE FORT DUPRE, *Assistant Professor of Architecture*.  
Clemson Agricultural College; New York School of Fine and Applied Arts, 1915-1916, 1920-1921; Further Work, R.R. Gallerie di Firenze, Italy, Summer 1931.
- HOLMES, ALESTER GARDEN, *Professor of History*.  
B.S., The Citadel, 1897; Graduate Work, University of Chicago, Summer 1911.
- HOWARD, FRANK JAMES, *Assistant Coach*.  
B.S., University of Alabama, 1931.
- HUFF, LORENZ DITMAR, *Assistant Professor of Physics*.  
A.B., 1927, M.S., 1928, Oklahoma University; Ph.D., California Institute of Technology, 1931.
- HUFFORD, GLENN DEWITT, *Assistant Professor of Military Science and Tactics, Assistant Commandant*.  
Major, Infantry, U. S. A.; Graduate Company Officers' Course, The Infantry School, 1925.
- HUNTER, HOWARD L., *Associate Professor of Chemistry*.  
B.Chem., 1925, Ph.D., 1928, Cornell University.
- HUNTER, JOSEPH EVERETT, *Professor of Mathematics*.  
B.S., Clemson Agricultural College, 1896; Graduate Work, University of Chicago, Summers 1902, 1904, 1910; University of North Carolina, Summer 1928.
- JOHNSON, WILLIS EDWIN, *Assistant Professor of Agricultural Education*.  
B.S., Mississippi A. and M. College, 1922; Graduate Work, Cornell University, Summer 1931.  
(In charge of Agricultural Education work at Seneca, S. C.)
- JONES, ROBERT MORGAN, *Assistant Coach*.  
B.S., Clemson Agricultural College, 1930.
- KINARD, FRANCIS MARION, *Associate Professor of English*.  
A.B., Wofford College, 1923; A.M., University of North Carolina, 1929.
- KIRKLEY, FRANCIS EDWARD, *Assistant Professor of Vocational Education*.  
B.S., Clemson Agricultural College, 1929.  
(In charge of Agricultural Education work, Central, S. C.)
- KLUGH, WILLISTON WIGHTMAN, *Associate Professor of Drawing*.  
B.S., Clemson Agricultural College, 1896; Graduate Work, Vanderbilt University, 1898; Cornell University, 1900.
- LAMASTER, JOSEPH PAUL, *Professor of Dairying*.  
B.S., 1913, M.S., 1928, University of Kentucky.

- LANE, JOHN DEWEY, *Associate Professor of English.*  
A.B., Newberry College, 1920; M.A., University of Virginia, 1924;  
Graduate Work, Columbia University, 1923 and 1928-1929.
- LEE, RUDOLPH EDWARD, *Professor of Architecture.*  
B.S., 1896, M.Arch., 1928, Clemson Agricultural College; Graduate Work,  
Cornell University; University of Pennsylvania; Zanerian Art School.
- LINDSAY, JOSEPH, JR., *Professor of Textile Chemistry and Dyeing.*  
A.B., Erskine College, 1919; Graduate Work, University of North Caro-  
lina, University of Chicago, and Philadelphia Textile School.
- LIPPINCOTT, WILLIAM LEROY, *Professor of Chemistry.*  
B.Chem., 1918, Graduate Work, 1920-1921, Cornell University.
- LUCAS, JOHN PAUL, *Assistant Professor of English.*  
A.B., Duke University, 1930; M.S., State College of the University of  
North Carolina, 1931; A.M., Princeton University, 1933; Graduate Work,  
Princeton University, 1931-1932, 1932-1933.
- MCGINTY, RUPERT ALONZO, *Vice-Director of Agricultural Experiment  
Station.*  
B.S., Alabama Polytechnic Institute, 1913; A.M., Washington University,  
1919; Cornell University, 1926-1927.
- McKENNA, ARTHUR ERNEST, *Associate Professor of Weaving and Design.*  
Graduate Rhode Island School of Design, 1922; Bradford-Durfee Textile  
School; B.S., Clemson Agricultural College, 1930; M.S., University of  
Tennessee, 1933.
- MACLACHLAN, JOHN DOUGLAS, *Assistant Professor of Botany.*  
B.A., Hon., Queen's University, 1931; A.M., 1933, Ph.D., 1935, Harvard  
University.
- MARSHALL, JOHN LOGAN, *Associate Professor of Wood Work.*  
Georgia School of Technology; B. S., Clemson Agricultural College, 1909;  
Bradley Polytechnic Institute, 1919.
- MARTIN, SAMUEL MANER, *Professor of Mathematics.*  
B.S., The Citadel, 1896; Graduate Work, Cornell University, Summer  
1900; Harvard University, Summer 1904; University of Chicago, Summer  
1908.
- MILLS, WILLIAM HAYNE, *Professor of Rural Sociology.*  
A.B., Davidson College, 1892; B.D., Columbia Theological Seminary, 1897.
- MITCHELL, JACK HARRIS, *Professor of Chemistry.*  
B.S., 1903, M.S., 1904, Alabama Polytechnic Institute; M.S., University  
of Illinois, 1911.
- MONROE, JAMES BEASLEY, *Acting Associate Professor of Vocational Edu-  
cation.*  
B.S., Clemson Agricultural College, 1915; M.S., Texas A. & M. College,  
1935; Graduate Work, Cornell University, Summer 1938.
- MORGAN, CHARLES LEE, *Professor of Poultry Husbandry.*  
B.S., 1918, M.S., 1927, University of Kentucky; Graduate Work, Univer-  
sity of Wisconsin, 1931-1932.
- MUSSER, ALBERT MYERS, *Professor of Horticulture.*  
B.S., University of Florida, 1918; Graduate Work, Michigan State College,  
1930, 1933.
- NEELY, JESS C., *Head Coach of Intercollegiate Athletics.*  
LL.B., Vanderbilt University, 1924.
- NEWMAN, CHARLES CARTER, *Professor of Horticulture.*  
Alabama Polytechnic Institute; B.S., Clemson Agricultural College.



- NUTT, GEORGE B., *Associate Professor of Agricultural Engineering.*  
B.S. in Agricultural Engineering, Mississippi State College, 1930; Graduate Work, Iowa State College, Summers 1934, 1937; Training course, International Harvester Company, 1931, 1932.
- ORENS, IRVING PEARY, *Assistant Professor of Physics.*  
B.S., University of Virginia, 1926; M.A., Columbia University, 1928; Ph.D., University of Virginia, 1934; Graduate Work, Yale University, 1930-1931; University of Berlin, Germany, 1931-1932.
- PATRICK, CHARNER SCAIFE, *Head Farms Department.*  
B.S., Clemson Agricultural College, 1913; Graduate Work, Iowa State College, winter quarter 1930, summer quarter 1931.
- PETERSON, VERD, *Consulting Professor of Agricultural Education, State Supervisor of Agricultural Education, Columbia, S. C.*
- PHILPOT, CLAUDE PAUL, *Assistant Professor of Forge and Foundry.*  
B.S., Clemson Agricultural College, 1928; Training course, Bethlehem Steel Company, 1928.
- POLLARD, FRANK H., *Professor of Chemistry.*  
B. of Chem., 1916, Ph.D., 1922, Cornell University.
- \*QUATTLEBAUM, ALEXANDER MCQUEEN, *Assistant Professor of Civil Engineering.*  
B.S., Clemson Agricultural College, 1934; M.S., Cornell University, 1935.
- REED, ALBERT RAYMOND, *Assistant Professor of Physics.*  
A.B., Wofford College, 1925; M.S., University of South Carolina, 1931.
- RHODES, SAM ROSEBOROUGH, *Professor of Electrical Engineering.*  
B.S., 1900, M.S., 1901, Furman University; B.S., 1907, E.E., 1928, Clemson Agricultural College; General Electric Company; Westinghouse Electric and Manufacturing Company.
- RHYNE, ORESTES PEARL, *Professor of Modern Languages.*  
A.B., Lenoir-Rhyne College, 1907; A.B., 1908, A.M., 1909, University of North Carolina; Ph.D., Johns Hopkins University, 1913; University of Heidelberg, Summer 1914; University of Leipzig, 1922.
- RICE, MYRON ARTHUR, *Assistant Professor of Botany.*  
B.S., University of California, 1916; M.S. in Agriculture, Cornell University, 1925.
- RITCHIE, ROBERT RUSSELL, *Assistant Professor of Animal Husbandry.*  
B.S., 1926, M.S., 1938, Iowa State College.
- ROSENKRANS, DUANE B., *Associate Professor of Botany.*  
A.B., Upper Iowa University, 1911; M.A., University of Wisconsin, 1917.
- SAMS, JAMES HAGOOD, JR., *Assistant Professor of Mechanical Engineering.*  
B.S., Clemson Agricultural College, 1924; E.E., Cornell University, 1926; M.S. in Mechanical Engineering, 1931, Ph.D., 1937, University of Michigan.
- SHANKLIN, AUGUSTUS G., *Professor Emeritus of Mathematics.*  
B.S., The Citadel, 1893; Graduate Work, Cornell University, Summer 1908; Columbia University, Summer 1911.
- SHELDON, DAWSON C., *Associate Professor of Mathematics.*  
B.S., State College of Washington, 1925; M.A., 1927, Ph.D., 1929, University of California.
- SHENK, DONALD H., *Associate Professor of Mechanical Engineering.*  
B.S., M.E., Purdue University, 1924; Graduate Work, Purdue University, 1927-1929; S.P.E.E., Summer School 1929.
- SHERMAN, FRANKLIN, *Professor of Entomology and Zoology.*  
B.S., Agriculture, Cornell University, 1900; M.S., University of Maryland, 1912.
- SLONE, HORACE EVANS, *Assistant Professor of Electrical Engineering.*  
E.E., Syracuse University, 1927; General Electric Company.

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\*In place of J. A. Stevenson, on leave.



- \*\*SMITH, HOWARD GODWIN**, *Assistant Professor of Electrical Engineering.*  
E.E., 1930, M.E.E., 1931, Ph.D., 1937, Cornell University.
- STARKEY, LAWRENCE VINCENT**, *Professor of Animal Husbandry.*  
B.S., University of Illinois, 1914; M.S., University of Wisconsin, 1917;  
Graduate Work, University of Wisconsin, 1930.
- \*STEVENSON, JAMES ANNE**, *Assistant Professor of Civil Engineering.*  
B.C.E., University of Arkansas, 1925; M.S., Iowa State College, 1927.
- STRIBLING, BRUCE HODGSON**, *Associate Professor of Vocational Education.*  
B.S., Clemson Agricultural College, 1918; Graduate Work, George Peabody  
College, Summers 1927, 1929.
- TARRANT, WILLIAM EDWARD**, *Assistant Professor of Weaving.*  
B.S., Clemson Agricultural College, 1927; Alabama Polytechnic Institute,  
Summer 1932; Clemson Agricultural College, Summer 1938.
- TATE, HAROLD SIMMONS**, *Associate Professor of Vocational Education.*  
B.S., Clemson Agricultural College, 1925; M.A., Columbia University,  
1929; George Peabody College, Summers 1927, 1931, 1932; Pennsylvania  
State College, Summers 1936, 1937, 1938.
- TAYLOR, RUPERT**, *Associate Professor of English.*  
A.B., 1903, A.M., 1906, University of Arkansas; Ph.D., Columbia Univer-  
sity, 1911.
- TINGLEY, FREEMAN THAYER**, *Professor of Electrical Engineering.*  
B.S., 1922, E.E., 1935, Bucknell; M.S., University of Illinois, 1929;  
Course, Westinghouse Company.
- TURNER, BENJAMIN RYAN**, *Consulting Professor of Industrial Education.*  
A.B., 1926, M.A., 1931, Wofford College; Clemson College, Summer 1927;  
Graduate Work, University of Cincinnati, 1934-1935 and Summer 1936.
- WALTHOUR, RUSSELL FLEMING, JR.**, *Assistant Professor of Military Science  
and Tactics, Assistant Commandant.*  
Major, Infantry, U. S. Army; B.S., Alabama Polytechnic Institute, 1916;  
Graduate, The Infantry School, 1922.
- WARD, JAMES EDWARD, JR.**, *Professor of Economics and Government.*  
B.S., 1929, M.S., 1931, University of Virginia; Graduate Work, Harvard  
University, 1932-1933; Ph.D., University of Virginia, 1935.
- WASHINGTON, WILLIAM HAROLD**, *Dean, School of Vocational Education,  
Dean of the Summer School.*  
B.S., Clemson Agricultural College, 1920; M.S., Iowa State College, 1922;  
Graduate Work, Georgia School of Technology, Summer 1925; George  
Peabody College, Summers 1928, 1929; 1932-1933.
- WEEKS, CHARLES WARREN**, *Professor of Military Science and Tactics,  
Commandant of Cadets.*  
Colonel, Infantry, U. S. Army; B.S., University of Nebraska, 1898;  
Honor Graduate Command and General Staff School, 1911; Graduate Gen-  
eral Staff Class, 1912; Graduate Army War College, 1920; Member of  
Initial General Staff List.
- WHITE, DAVID GRAMMER**, *Acting Assistant Professor of Horticulture.*  
B.S., M.A., 1938, University of Missouri.
- WHITE, THOMAS ARLINGTON**, *Professor of Vocational Education.*  
B.S., 1924, M.S., 1929, North Carolina State College; Ph.D., Cornell  
University, 1933.
- WILLIAMS, BARNETT OSBORNE**, *Professor of Rural Sociology and Statistics.*  
B.S., Clemson Agricultural College, 1918; M.S., University of Virginia,  
1929; Ph.D., University of Minnesota, 1938.
- WILLIS, HORACE HAROLD**, *Dean, School of Textiles.*  
B.S., Clemson Agricultural College, 1917.
- ZURBURG, FREDERICK WILLIAM**, *Assistant Professor of Chemistry.*  
B.S., 1927, M.S., 1928, University of North Carolina.

---

\*On leave 1938-1939.

\*\*In place of A. B. Credle, on leave.

## INSTRUCTORS

---

- ALEXANDER, RUFUS CLIFTON, *Vocational Education*.  
B.S., Clemson Agricultural College, 1929; Graduate Work, University of South Carolina, Summer 1930; Cornell University, Summer 1931.
- BELL, FRANCIS LANEY, *Graduate Assistant, Chemistry*.  
B.S., Clemson Agricultural College, 1938.
- BELL, MARSHALL CORNETT, *Mathematics*.  
A.B., 1933, M.A., 1936, University of North Carolina.
- BING, WILLIAM KYGER, *Agricultural Economics and Rural Sociology*.  
B.S., University of Virginia, 1936.
- BLALOCK, THOMAS JACKS, *Graduate Assistant, Chemistry*.  
B.S., Presbyterian College, 1931.
- BOESCH, JOHN CHRISTIAN, *Graduate Assistant, Chemistry*.  
B.S., Clemson Agricultural College, 1938.
- BOONE, JACK HAPPEL, *English*.  
B.A., 1930, M.A., 1931, Vanderbilt University; Graduate Work, Vanderbilt University, 1931-1932.
- BRANCH, JAMES STROTHER, *Engineering*.  
B.S., Clemson Agricultural College, 1936.
- CHAPMAN, JAMES KIBLER, *Assistant in Woodshop*.  
B.S., Clemson Agricultural College, 1938.
- COKER, EDWARD CALEB, JR., *Mathematics*.  
A.B., University of South Carolina, 1928; M.A., University of North Carolina, 1930; Graduate Work, Brown University, 1932; Graduate Work, University of Chicago, Summers 1936, 1938.
- DEAN, JORDAN ARTHUR, *English and French*.  
A.B., Wofford College, 1933; M.A., Vanderbilt University, 1934; University of Illinois, 1937.
- DEMOTT, OTIS ALPHONSO, *Military Science and Tactics, Sergeant in Commandant's Office*.  
Sergeant, DEML, Infantry, U. S. Army.
- DICKERT, YANCY JACKSON, *Graduate Assistant, Chemistry*.  
A.B., Newberry College, 1938.
- DOUGLASS, GEORGE ARCHIBALD, *Assistant in Drawing*.  
B.S., Clemson Agricultural College, 1931.
- DOWNES, JAMES B. T., *Mechanical Engineering*.  
M.E., 1934, M.S., 1938, Stevens Institute of Technology.
- DURHAM, FRANCIS MARION, *English*.  
A.B., University of South Carolina, 1934; M.A., University of North Carolina, 1937; Summer School, University of North Carolina, 1938.
- \*EPTING, CARL LAFAYETTE, *History and Government*.  
A.B., Newberry College, 1921; A.M., University of South Carolina, 1925; Graduate Work, University of South Carolina, 1926, 1928, 1932-1934; University of North Carolina, Summers 1927, 1928.

---

\*On leave 1938-1939.

GAGE, GASTON, *Acting Instructor, Textile Industry.*

B.S., Clemson Agricultural College, 1921; Graduate Work, University of North Carolina, Summers 1935, 1936.

GAUGH, ROBERT HUGH, *English.*

B.A., Union University, 1932; M.A., Vanderbilt University, 1937.

GEE, ROBERT ESTES, *Chemistry and Geology.*

A.B., Newberry College, 1931; M. A., University of North Carolina, 1934.

HAWKINS, GARY FRED, *Chemistry.*

B.S., Newberry College, 1935.

HEATH, HENRY SANFORD, *Military Science and Tactics, Sergeant-Major in Commandant's Office.*

Sergeant, DEML, Infantry, U. S. Army.

HELTON, KENNEY RIXIE, *Military Science and Tactics, Sergeant in Commandant's Office.*

Sergeant, DEML, Infantry, U. S. Army.

\*HENRY, NATHANIEL H., *English.*

A.B., 1929, A.M., 1933, University of North Carolina.

HICKS, WILLIAM LYLES, *Textile Chemistry and Dyeing.*

B.S., Clemson Agricultural College, 1931; Furman University, Summer 1938.

HODGES, BAXTER H., *Chemistry.*

B.S., Clemson Agricultural College, 1933; Graduate Work, University of North Carolina, Summer 1936.

HUCKABEE, MARVIN L., *Textile Chemistry and Dyeing.*

B.S., Clemson Agricultural College, 1933; Graduate Work, University of North Carolina, Summers 1935, 1936, 1937, 1938.

JONES, JESS WILLARD, *Agronomy.*

B.S., Clemson Agricultural College, 1937; M.S., Cornell University, 1938.

JONES, JOSEPH CROSBY, *Graduate Assistant, Botany and Bacteriology.*

B.S., Clemson Agricultural College, 1937.

JONES, ROBERT HENRY, *Agricultural Engineering.*

B.S. in Agricultural Engineering, Mississippi State College, 1935; Graduate Work, Virginia Polytechnic Institute, Summer 1936.

KELLY, LOUIS GRANT, *Mathematics.*

B.S., Clemson Agricultural College, 1937; Graduate Work, University of North Carolina, Summer 1938.

\*\*KENDRICK, J. EARLE, *History and Government.*

A.B., University of North Carolina, 1935; M.A., Emory University, 1936; Graduate Work, Harvard University, 1936-1937; University of North Carolina, 1937-1938.

KIRCHNER, GEORGE FREDERICK, *Vocational Education.*

B.S., Clemson Agricultural College, 1933; Graduate Work, Y. M. C. A. Graduate School, 1933; Springfield College, Summer 1934; M.S., Louisiana State University, 1938.

KIRKWOOD, CHARLES EDWARD, JR., *Mathematics and Physics.*

A.B., Lynchburg College, 1935; M.S., University of Georgia, 1937.

---

\*On leave 1938-1939.

\*\*In place of C. L. Epting, on leave.

- LIPSCOMB, RALPH WALDO, *Agronomy*.  
B.S., Clemson Agricultural College, 1928; M.S., Michigan State College, 1930.
- MCALISTER, HAROLD JESSE, *Graduate Assistant, Botany and Bacteriology*.  
B.S., Clemson Agricultural College, 1934.
- MASSEY, JOE THOMAS, *Electrical Engineering*.  
B.S., State College of University of North Carolina, 1938.
- MILLER, WILLIAM GILBERT, *Mathematics*.  
A.B., Birmingham Southern College, 1931; M.A., University of Florida, 1933.
- NEWSOM, SHELDON MORRIS, *Textiles*.  
B.S., Clemson Agricultural College, 1934.
- SHIGLEY, JOSEPH EDWARD, *Mechanical Engineering*.  
B.S. in E.E., 1931, B.S. in M.E., 1932, Purdue University.
- STOKELY, DAVE ROBERTSON, *Graduate Assistant, Chemistry*.  
B.S., Clemson Agricultural College, 1938.
- VANDIVERE, EDGAR, *Physics*.  
A.B., Emory University, 1934; M.A., Duke University, 1935.
- WALKER, R. CASPER, *History and Government*.  
A.B., 1935, M.A., 1937, Emory University.
- WALTERS, JOHN VERNON, *Textiles*.  
B.S., Clemson Agricultural College, 1933; Summer 1938.
- WARE, ROBERT EDWARD, *Zoology and Entomology*.  
B.S., Iowa Wesleyan College, 1929; Graduate Work, Iowa State College, Summers 1931, 1932, 1938.
- WILKINSON, HARRY JOHN, *Military Science and Tactics, Assistant to Military Property Custodian*.  
Sergeant, DEML, Infantry, U. S. Army.



# STANDING COMMITTEES OF THE FACULTY

## 1938-1939

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The President is *ex officio* a member of all committees.

### ADMISSIONS :

Daniel, *Chairman*; Calhoun, Cooper, Holmes, Martin, Metz.

### ADVANCED COURSES :

Brown, Cooper, Hunter, H. L., Sams, White, Registrar, *ex officio*.

### ASSEMBLIES AND LECTURES :

Daniel, *Chairman*; Bradley, Crouch, Earle, Freeman, Lippincott.

### ATHLETICS :

Milford, *Chairman*; Gage, Mitchell, Rhodes, Watkins, J. C. Littlejohn, Business Manager, *ex officio*; G. E. Metz, Registrar, *ex officio*.

### AWARDS AND HONORS :

Daniel, *Chairman*; Armstrong, Carodemos, Curtis, McKenna, Monroe.

### CATALOG :

President Sikes, *Chairman*; Brearley, Littlejohn, Metz, Washington.

### DAY AND SPECIAL STUDENTS :

Metz, *Chairman*; Holtzendorff, Littlejohn, The Commandant.

### DEFICIENT STUDENTS :

Kinard, *Chairman*; Burton, Hunter, J. E., Brown, Goodale, Pollard.

### FACULTY PROGRAM :

Goodale, *Chairman*; Brown, Rosenkrans, Ward, Sams, MacLachlan, Hunter, H. L.

### LIBRARY :

The Librarian, *Chairman*; Calhoun, Lee, R. E., Holmes, Lane, Mills, Rhyne, Brearley.

### REEXAMINATION AND PROMOTION :

Metz, *Chairman*; Aull, W. B., Calhoun, Daniel, Earle, Kinard, Mitchell, Martin, Tate, Willis.

### SCHEDULE :

Metz, *Chairman*; Aull, Dumas, Gage, Heath, Kinard, Pollard, Rhodes, Sams, Tate.

### SECONDARY SCHOOLS RELATIONS :

Metz, *Chairman*; Booker, Kinard, Marshall, Sherman, Washington.

### STUDENT LOANS :

Littlejohn, *Chairman*; Evans, Woodward.

### STUDENT ORGANIZATIONS :

Eaton, *Chairman*; Calhoun, Collings, Freeman, Marshall, Taylor.

### STUDENT PUBLICATIONS :

Lane, *Chairman*; Littlejohn, Sherman, J. E.

### UNIFORM :

Littlejohn, *Chairman*; Douthit (Trustee-Member), Eaton, Evans, The Commandant.

### VISITORS :

Woodward, *Chairman*; Littlejohn, Metz, The Commandant.

## OTHER OFFICERS

---

|                                             |                                         |
|---------------------------------------------|-----------------------------------------|
| JACOB HENRY WOODWARD                        | Assistant to the President              |
| VIRGINIA EARLE SHANKLIN                     | Secretary to the President              |
| JOHN WALLACE LAGRONE, B.S., M.A.            | Assistant Registrar                     |
| KENNETH NOTLEY VICKERY, B.S.                | Assistant to the Registrar              |
| JEAN BEVERLEY SLOAN                         | Assistant to the Registrar              |
| FLORENCE ESTELLE GEE                        | Stenographer Registrar's Office         |
| BRANTLY LEAVELL JOHNSTONE, A.B.             | Stenographer Registrar's Office         |
| ELIZABETH KELLY, B.S.                       | Stenographer Registrar's Office         |
| MARY CONRAD STEVENSON, A.B.                 | Assistant Librarian                     |
| JANE LLEWELLYN MCDANIEL, A.B., A.B. in L.S. | Assistant to the Librarian              |
| ANTOINETTE HARRISON EARLE, A.B.             | Assistant to the Librarian              |
| JOSEPH EDGAR SHERMAN, B.S.                  | Athletic Publicity Director             |
| THOMAS EDWARD STANLEY, B.S.                 | Assistant in Business Manager's Office  |
| MARY LEIGHTON MILLS RITCHIE, B.S.           | Assistant to the Business Manager       |
| BOYCE B. BURLEY                             | Bookkeeper                              |
| ANDREW JOSEPH BROWN, B.S.                   | Bookkeeper                              |
| HAROLD D. COCHRAN                           | Assistant Bookkeeper                    |
| LEWIS DANIEL MALPHRUS, B.S.                 | Clerk, Treasurer's Office               |
| HELEN MORRISON                              | Assistant to Treasurer                  |
| IRENE JULIAN, R.N.                          | Drug Nurse and Dietician                |
| MYRTLE DEAN                                 | X-Ray and Laboratory Technician         |
| JOSEPH M. GLASCOCK, R.N.                    | General Nursing                         |
| GLADYS MITCHELL, R.N.                       | Assistant Nurse                         |
| VIRGINIA HAYNES                             | Assistant Nurse                         |
| ANNIE I. LINDSAY, R.N.                      | Assistant Nurse and Assistant Dietician |
| BLANCHE F. GLASCOCK                         | Secretary to the College Surgeon        |
| DAVID J. WATSON, B.S.                       | Supt. of Campus, Roads and Buildings    |
| JAMES DOUGLAS HARCMBE                       | Mess Officer                            |
| RUDOLPH E. LEE, A.I.A.                      | College Architect                       |
| PRESTON BROOKS HOLTZENDORFF, JR., LL.B.     | General Secretary, Y. M. C. A.          |
| JOHN ROY COOPER, B.S.                       | Associate Secretary, Y. M. C. A.        |
| JOHN K. GOODE, A.B.                         | Pastor Baptist Church                   |
| DONALD E. VEALE                             | Rector Episcopal Church                 |
| SYDNEY J. L. CROUCH, B.D., Th.D.            | Pastor Presbyterian Church              |
| DAVID ARTHUR CLYBURN, A.B., B.D.            | Pastor Methodist Church                 |
| HENRY L. SPIESMAN                           | Pastor St. Andrews Catholic Church      |

# AGRICULTURAL EXPERIMENT STATION STAFF

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## Board of Control

|                                            |            |
|--------------------------------------------|------------|
| HONORABLE SAM H. SHERARD                   | Ninety Six |
| HONORABLE W. W. BRADLEY, <i>Ex-Officio</i> | Columbia   |
| HONORABLE T. B. YOUNG                      | Florence   |
| HONORABLE A. F. LEVER                      | Columbia   |
| HONORABLE PAUL SANDERS                     | Ritter     |
| HONORABLE F. E. COPE                       | Cope       |
| HONORABLE R. M. COOPER                     | Columbia   |
| HONORABLE J. B. DOUTHIT                    | Pendleton  |

---

|                           |                      |
|---------------------------|----------------------|
| E. W. SIKES, PH.D., LL.D. | <i>President</i>     |
| H. P. COOPER, PH.D.       | <i>Director</i>      |
| R. A. MCGINTY, A.M.       | <i>Vice-Director</i> |

---

## Agricultural Economics and Rural Sociology

|                       |                                  |
|-----------------------|----------------------------------|
| G. H. Aull, Ph.D.     | Agricultural Economist           |
| B. O. Williams, Ph.D. | Rural Sociologist                |
| W. T. Ferrier, Ph.D.  | Associate Agricultural Economist |
| H. L. Fulmer, Ph.D.   | Associate Rural Sociologist      |
| *J. L. Fulmer, M.S.A. | Assistant Agricultural Economist |
| Ernest Riley, B.S.    | Assistant Agricultural Economist |
| **H. A. White, B.S.   | Assistant Agricultural Economist |

## Agronomy

|                        |                                 |
|------------------------|---------------------------------|
| H. P. Cooper, Ph.D.    | Agronomist                      |
| W. R. Paden, Ph.D.     | Associate Agronomist            |
| Frank Moser, Ph.D.     | Associate Agronomist            |
| G. B. Killinger, Ph.D. | Associate Soil Scientist        |
| H. T. Polk, Ph.D.      | Associate Agronomist            |
| J. W. Jones, M.S.      | Assistant Agronomist            |
| H. A. Einstein, Ph.D.  | Hydraulic Engineer              |
| G. B. Nutt, B.S.       | Assistant Agricultural Engineer |
| G. H. Dunkelberg, M.S. | Assistant Agricultural Engineer |

## Animal Husbandry

|                              |                              |
|------------------------------|------------------------------|
| L. V. Starkey, M.S.          | Animal Husbandman            |
| E. G. Godbey, B.S.           | Associate Animal Husbandman  |
| G. W. Anderson, D.V.M., M.S. | Associate Animal Pathologist |

## Botany and Bacteriology

|                        |                                          |
|------------------------|------------------------------------------|
| G. M. Armstrong, Ph.D. | Botanist and Plant Pathologist           |
| W. B. Aull, B.S.       | Associate Bacteriologist                 |
| C. H. Arndt, Ph.D.     | Associate Botanist and Plant Pathologist |
| W. B. Albert, Ph.D.    | Associate Plant Physiologist             |

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\*On leave 1938-1939.

\*\*In cooperation with the United States Department of Agriculture.

C. C. Bennett, B.S.-----Assistant in Botany  
 \*\*Richard Weindling, Ph.D.-----Agent  
 \*\*B. S. Hawkins, B.S.-----Agent  
 \*\*G. W. Boozer, Jr., B.S.-----Agent  
 \*\*W. B. Keller, B.S.-----Agent

*Chemistry*

J. H. Mitchell, M.S.-----Chemist  
 D. B. Roderick, B.A.-----Assistant Chemist  
 E. J. Lease, Ph.D.-----Associate Chemist

*Dairy*

J. P. LaMaster, M.S.-----Dairyman  
 G. H. Wise, Ph.D.-----Associate Dairyman  
 P. G. Miller, Ph.D.-----Associate Dairyman  
 W. M. DuPre, B.S.-----Assistant in Dairying

*Entomology*

Franklin Sherman, M.S.-----Entomologist  
 O. L. Cartwright, M.S.-----Associate Entomologist  
 J. N. Todd, M.S.-----Assistant in Entomology

*Home Economics*

Ada M. Moser, M.S.-----Home Economist in Charge  
 Mary E. Frayser, M.A.-----Home Economist

*Horticulture*

A. M. Musser, B.S.-----Horticulturist  
 J. B. Edmond, Ph.D.-----Associate Horticulturist  
 \*F. S. Andrews, M.S.-----Associate Horticulturist

*Farms*

C. S. Patrick, B.S.-----Head Farms Department

*Poultry*

C. L. Morgan, M.S.-----Poultryman  
 R. C. Ringrose, Ph.D.-----Assistant Poultry Husbandman

*Publications*

A. B. Bryan, B.Litt.-----Agricultural Editor  
 W. C. Breazeale, B.S.-----Bulletin Clerk

*Veterinary*

R. O. Feeley, D.V.S.-----Veterinarian

\*On leave 1938-1939.

\*\*In cooperation with the United States Department of Agriculture.



*Coast Station  
Summerville, South Carolina*

E. D. Kyzer, B.S.-----Superintendent  
 \*\*R. L. Jones, B.S.-----Agent

*Pee Dee Station  
Florence, South Carolina*

E. E. Hall, M.S.-----Superintendent  
 \*\*W. H. Jenkins, B.S.-----Associate Agronomist  
 \*\*W. M. Lunn, M.S.-----Associate Agronomist  
 \*\*F. F. Bondy, B.S.-----Assistant Entomologist  
 \*\*C. F. Rainwater, B.S.-----Assistant Entomologist  
 \*\*Norman Allen, M.S.-----Assistant Entomologist  
 Frank Harrell-----Research Assistant  
 \*\*J. D. McCown-----Agent

*Sandhill Station  
R. 5, Columbia, South Carolina*

J. A. Riley, M.S.-----Superintendent  
 L. E. Scott, M.S.-----Assistant Horticulturist  
 R. W. Wallace, B.S.-----Assistant Agronomist  
 \*\*Nelson McKaig, M.S.-----Associate Soil Technologist  
 \*\*E. W. Faires, B.S.-----Agent  
 \*\*E. M. Roller, Ph.D.-----Assistant Chemist  
 \*\*W. A. Carns-----Agent

*Truck Station  
Post Office Box 337  
Charleston, South Carolina*

W. C. Barnes, Ph.D.-----Acting Superintendent  
 J. M. Jenkins, Jr., M.S.-----Assistant Horticulturist  
 \*\*W. J. Reid, Jr., B.S.-----Assistant Entomologist  
 \*\*C. O. Bare, M.A.-----Assistant Entomologist

*Edisto Station  
Blackville, South Carolina*

W. B. Rogers, B.S.-----Superintendent  
 R. L. Smith, M.S.-----Assistant Agronomist  
 C. J. Nusbaum, Ph.D.-----Assistant Plant Pathologist  
 J. G. Watts, M.S.-----Assistant Entomologist

*Crop Pest Commission*

G. M. Armstrong, Ph.D.-----State Pathologist  
 Franklin Sherman, M.S.-----State Entomologist  
 J. A. Berly, B.S.-----Assistant State Entomologist  
 M. B. Stevenson, B.S.-----Assistant State Pathologist

*Fertilizer Inspection and Analysis*

B. D. Cloaninger, B.S.-----Head of Department  
 B. F. Robertson, B.S.-----Chief Chemist, Toxicological Work  
 H. J. Webb, Ph.D.-----Assistant Chief Chemist in Charge  
 J. T. Foy, B.S.-----Chemist  
 C. R. Clark, B.S.-----Assistant Chemist  
 E. E. Leslie, B.S.-----Assistant Chemist  
 C. H. Hollis, B.S.-----Assistant Chemist

\*On leave 1938-1939.

\*\*In cooperation with the United States Department of Agriculture.

# LIVESTOCK SANITARY WORK STAFF

## COLUMBIA, SOUTH CAROLINA

---

W. K. LEWIS, V.S., M.D.V.-----State Veterinarian and Director

---

R. A. MAYS, B.Sc., D.V.M.-----Assistant State Veterinarian  
 JACK SCOTT, D.V.M.-----Assistant State Veterinarian  
 E. T. FISHER, D.V.M.-----Assistant State Veterinarian  
 F. K. PETERSON, D.V.M.-----Assistant State Veterinarian  
 W. R. CHASTAIN, D.V.M.-----Assistant State Veterinarian  
 J. G. MCKEE, D.V.M.-----Assistant State Veterinarian  
 H. B. HOOD, V.M.D.-----Assistant State Veterinarian  
 S. M. WITHERSPOON, B.Sc., D.V.M.-----Assistant State Veterinarian  
 I. R. COOPER, D.V.M.-----Assistant State Veterinarian  
 R. L. WILLIS, D.V.M.-----Assistant State Veterinarian

---

N. J. Ayers, D.V.M.-----Deputy State Veterinarian, Greer  
 W. A. Barnette, B.Sc., D.V.M.-----Deputy State Veterinarian, Greenwood  
 M. R. Blackstock, D.V.S.-----Deputy State Veterinarian, Spartanburg  
 T. L. Burriss, D.V.M.-----Deputy State Veterinarian, Anderson  
 F. P. Caughman, Sr., B.Sc., V.M.D.-----Deputy State Veterinarian, Columbia  
 J. T. Dickson, D.V.M.-----Deputy State Veterinarian, Rock Hill  
 H. L. Frieze, D.V.M.-----Deputy State Veterinarian, Gaffney  
 H. W. Graves, D.V.M.-----Deputy State Veterinarian, Union  
 C. C. Harmon, B.Sc., D.V.M.-----Deputy State Veterinarian, Columbia  
 Carlos Helms, D.V.M.-----Deputy State Veterinarian, Darlington  
 L. J. Hogan, D.V.M.-----Deputy State Veterinarian, Charleston  
 O'Neal Jacobs, D.V.M.-----Deputy State Veterinarian, Laurens  
 T. J. Kinard, D.V.M.-----Deputy State Veterinarian, Ninety Six  
 Don O. Kitchen, D.V.M.-----Deputy State Veterinarian, Greenville  
 F. E. Kitchen, D.V.M.-----Deputy State Veterinarian, Greenville  
 G. R. Kitchen, D.V.M.-----Deputy State Veterinarian, Sumter  
 G. J. Lawhon, B.Sc., D.V.M.-----Deputy State Veterinarian, Hartsville  
 J. S. Lide, D.V.M.-----Deputy State Veterinarian, Newberry  
 W. D. McCormack, D.V.M.-----Deputy State Veterinarian, Conway  
 B. C. McLean, V.M.D.-----Deputy State Veterinarian, Aiken  
 W. K. Magill, B.Sc., D.V.M.-----Deputy State Veterinarian, Chester  
 A. S. Moore, D.V.M.-----Deputy State Veterinarian, Walterboro  
 J. H. Moore, D.V.M.-----Deputy State Veterinarian, Charleston  
 J. H. Morse, V.M.D.-----Deputy State Veterinarian, Sumter  
 B. K. McInnes, M.D., V.M.D.-----Deputy State Veterinarian, Charleston  
 R. R. Salley, D.V.M.-----Deputy State Veterinarian, Orangeburg  
 R. O. Suddath, B.S.A., V.M.D.-----Deputy State Veterinarian, Walhalla  
 B. C. Talley, B.Sc., D.V.M.-----Deputy State Veterinarian, Bennettsville  
 E. R. VanDeGrift, Jr., D.V.M.-----Deputy State Veterinarian, Columbia

## AGRICULTURAL EXTENSION STAFF

---

|                           |                            |
|---------------------------|----------------------------|
| E. W. SIKES, Ph.D., LL.D. | President                  |
| D. W. WATKINS, B.S., M.A. | Director                   |
| T. W. MORGAN, B.S.        | Assistant to the Director  |
| C. M. HALL                | Chief Clerk and Accountant |

---

### *Agricultural Economics*

O. M. Clark, B.S., M.S.

|                                                             |                                               |
|-------------------------------------------------------------|-----------------------------------------------|
| Extension Economist and Farm Management Specialist, Clemson |                                               |
| M. C. Rochester, B.S., M.S.                                 | Farm Management Specialist, Clemson           |
| *W. L. Abernathy, B.S.                                      | Assistant Extension Economist, Clemson        |
| *P. S. Williamon, B.S.                                      | Assistant Farm Management Specialist, Clemson |
| D. C. Sturgis, B.S., M.S.                                   | Assistant Extension Economist, Clemson        |
| M. H. Sutherland, B.S.                                      | Assistant Extension Economist, Clemson        |
| P. B. Ezell, B.S.                                           | Supervisor Test-Demonstration Farms, Newberry |

### *Agricultural Engineering*

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| C. V. Phagan, B.S.        | Agricultural Engineer, Clemson                  |
| G. H. Stewart, B.S., M.S. | Assistant Agricultural Engineer, Clemson        |
| E. C. Turner, B.S.        | Soil Conservation Specialist, Clemson           |
| M. C. McKenzie, B.S.      | Assistant to the Agricultural Engineer, Clemson |

### *Agronomy*

|                         |                                         |
|-------------------------|-----------------------------------------|
| **R. W. Hamilton, B.S.  | Extension Agronomist in Charge          |
| B. E. G. Prichard, B.S. | Assistant Extension Agronomist, Clemson |
| H. A. McGee             | Tobacco Specialist, Florence            |

### *Animal Husbandry*

|                           |                                         |
|---------------------------|-----------------------------------------|
| J. R. Hawkins, B.S., M.S. | In Charge Livestock Extension, Columbia |
| A. L. DuRant, B.S., M.S.  | Livestock Specialist, Florence          |

### *Boys' 4-H Club Work*

|                         |                                                  |
|-------------------------|--------------------------------------------------|
| I. D. Lewis, B.S., M.S. | State Boys' Club Agent, Clemson                  |
| *L. O. Clayton, B.S.    | Assistant State Boys' Club Agent, Clemson        |
| O. R. Smith, B.S.       | Acting Assistant State Boys' Club Agent, Clemson |

### *Dairying*

|                     |                                     |
|---------------------|-------------------------------------|
| C. G. Cushman, B.S. | Dairy Specialist in Charge, Clemson |
| T. F. Cooley, B.S.  | Dairy Specialist, Clemson           |

### *Entomology and Plant Pathology*

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| W. C. Nettles, B.S., M.S. | Extension Entomologist and Plant Pathologist, Clemson |
| E. S. Prevost             | Specialist in Beekeeping, Clemson                     |

### *Horticulture*

|                        |                                             |
|------------------------|---------------------------------------------|
| E. H. Rawl, B.S., M.S. | Extension Horticulturist in Charge, Clemson |
| A. E. Schilleter, B.S. | Extension Horticulturist, Clemson           |

### *Marketing*

|                     |                                             |
|---------------------|---------------------------------------------|
| G. E. Prince, B.S.  | Chief Marketing Division, Columbia          |
| T. A. Cole, B.S.    | Agent in Marketing, Columbia                |
| E. H. Talbert, B.S. | Specialist in Grading and Packing, Columbia |

### *Poultry*

|                           |                                         |
|---------------------------|-----------------------------------------|
| P. H. Gooding, B.S., M.S. | Extension Poultryman, Clemson           |
| J. W. Matthews, B.S.      | Assistant Extension Poultryman, Clemson |

### *Printing and Distribution of Publications*

|                            |                                       |
|----------------------------|---------------------------------------|
| A. B. Bryan, B.S., B.Litt. | Agricultural Editor, Clemson          |
| J. D. Wooten               | Field Information Specialist, Clemson |

### *Visual Instruction*

|                    |                                          |
|--------------------|------------------------------------------|
| T. W. Morgan, B.S. | In Charge of Division, Clemson           |
| J. D. Brown, B.S.  | Assistant in Visual Instruction, Clemson |
| L. W. Riley        | Assistant in Visual Instruction, Clemson |

\*On leave.

\*\*At present with the Agricultural Adjustment Administration, Columbia.

## DISTRICT AGENTS

FIRST DISTRICT -----\*A. A. McKeown, B.S.-----Spartanburg  
 SECOND DISTRICT -----J. T. Lazar, B.S.-----Florence  
 THIRD DISTRICT -----A. H. Ward, B.S.-----Aiken

## COUNTY AGRICULTURAL AGENTS

| <i>County</i>      | <i>Name</i>                     | <i>Post Office</i> |
|--------------------|---------------------------------|--------------------|
| Abbeville -----    | Z. D. Robertson, A.B.-----      | Abbeville          |
| Aiken -----        | H. A. Woodle, B.S.-----         | Aiken              |
| Allendale -----    | W. H. Pressly, B.S.-----        | Allendale          |
| Anderson -----     | E. P. Josey, B.S.-----          | Anderson           |
| Bamberg -----      | W. H. Craven, B.S.-----         | Bamberg            |
| Barnwell -----     | H. G. Boylston, B.S.-----       | Barnwell           |
| Beaufort -----     | T. H. Seabrook, B.S.-----       | Beaufort           |
| Berkeley -----     | J. H. Harvey, B.S.-----         | Moncks Corner      |
| Calhoun -----      | Colin McLaurin, B.S.-----       | St. Matthews       |
| Charleston -----   | C. W. Carraway, B.S.-----       | Charleston         |
| Cherokee -----     | S. C. Stribling, B.S.-----      | Gaffney            |
| Chester -----      | M. C. Crain, B.S.-----          | Chester            |
| Chesterfield ----- | W. J. Tiller, B.S.-----         | Chesterfield       |
| Clarendon -----    | F. M. Rast, B.S., M.S.-----     | Manning            |
| Colleton -----     | L. W. Alford, B.S.-----         | Walterboro         |
| Darlington -----   | J. M. Napier, B.S., M.S.-----   | Darlington         |
| Dillon -----       | S. W. Epps, B.S.-----           | Dillon             |
| Dorchester -----   | G. C. Meares, B.S.-----         | St. George         |
| Edgefield -----    | J. F. Jones, B.S.-----          | Edgefield          |
| Fairfield -----    | R. H. Lemmon, B.S.-----         | Winnsboro          |
| Florence -----     | J. W. McLendon, B.S.-----       | Florence           |
| Georgetown -----   | M. M. McCord, B.S.-----         | Georgetown         |
| Greenville -----   | W. R. Gray, B.S.-----           | Greenville         |
| Greenwood -----    | R. D. Steer, B.S.-----          | Greenwood          |
| Hampton -----      | J. C. Anthony, B.S.-----        | Hampton            |
| Horry -----        | V. M. Johnston, B.S.-----       | Conway             |
| Jasper -----       | J. P. Graham, B.S.-----         | Ridgeland          |
| Kershaw -----      | W. C. McCarley, B.S.-----       | Camden             |
| Lancaster -----    | F. W. Cannon, B.S.-----         | Lancaster          |
| Laurens -----      | C. B. Cannon, B.S.-----         | Laurens            |
| Lee -----          | **T. M. Cathcart, B.S.-----     | Bishopville        |
| Lee -----          | J. C. McComb, B.S., Acting----- | Bishopville        |
| Lexington -----    | R. R. Mellette, B.S.-----       | Lexington          |
| McCormick -----    | R. D. Suber, B.S.-----          | McCormick          |
| Marion -----       | W. R. Wells, Jr., B.S.-----     | Marion             |
| Marlboro -----     | W. D. Wood, B.S.-----           | Bennettsville      |
| Newberry -----     | **P. B. Ezell, B.S.-----        | Newberry           |
| Newberry -----     | J. L. King, B.S., Acting-----   | Newberry           |
| Oconee -----       | G. H. Griffin, B.S.-----        | Walhalla           |
| Orangeburg -----   | L. B. Massey, B.S.-----         | Orangeburg         |
| Pickens -----      | T. A. Bowen, B.S.-----          | Pickens            |
| Richland -----     | D. R. Hopkins, B.S.-----        | Columbia           |
| Saluda -----       | Claude Rothell, B.S.-----       | Saluda             |
| Spartanburg -----  | W. H. Stallworth, B.S.-----     | Spartanburg        |
| Sumter -----       | J. M. Eleazer, B.S.-----        | Sumter             |
| Union -----        | T. B. Lee, B.S.-----            | Union              |
| Williamsburg ----- | A. Jackson, B.S.-----           | Kingstree          |
| York -----         | L. W. Johnson, B.S.-----        | Rock Hill          |

\*Deceased.

\*\*On leave.



## ASSISTANT COUNTY AGRICULTURAL AGENTS

| <i>County</i>  | <i>Name</i>            | <i>Post Office</i> |
|----------------|------------------------|--------------------|
| Aiken          | D. A. Shelley, B.S.    | Aiken              |
| Anderson       | M. A. Bouknight, B.S.  | Anderson           |
| Barnwell       | H. A. Bowers, B.S.     | Barnwell           |
| Charleston     | J. E. Youngblood, B.S. | Charleston         |
| Chester        | D. H. Caughman, B.S.   | Chester            |
| Chesterfield   | J. C. Willis, B.S.     | Chesterfield       |
| Colleton       | D. Richardson, B.S.    | Walterboro         |
| Darlington     | J. W. Talbert, B.S.    | Darlington         |
| Florence       | E. B. Baskin, B.S.     | Florence           |
| Greenville     | J. D. Miller, B.S.     | Greenville         |
| Greenwood      | T. M. Clyburn, B.S.    | Greenwood          |
| Horry          | J. M. Lewis, B.S.      | Conway             |
| Laurens        | T. A. Stallworth, B.S. | Laurens            |
| Newberry       | G. J. Mobley, B.S.     | Newberry           |
| Orangeburg     | E. C. Abrams, B.S.     | Orangeburg         |
| Pickens-Oconee | J. R. Wood, B.S.       | Pickens            |
| Spartanburg    | W. J. Martin, B.S.     | Spartanburg        |
| Sumter         | T. O. Bowen, B.S.      | Sumter             |
| Williamsburg   | D. K. Josey, B.S.      | Kingstree          |
| York           | B. J. Funderburk, B.S. | Rock Hill          |

## NEGRO AGRICULTURAL AGENTS

H. E. Daniels, District Agent, State College, Orangeburg, S. C.

| <i>County</i> | <i>Name</i>       | <i>Post Office</i> |
|---------------|-------------------|--------------------|
| Aiken         | George T. Dowdy   | Aiken              |
| Anderson      | J. A. Gresham     | Anderson           |
| Bamberg       | J. D. Marshall    | Bamberg            |
| Beaufort      | Benjamin Barnwell | Beaufort           |
| Chester       | Waymon Johnson    | Chester            |
| Clarendon     | Wm. Thompson      | Manning            |
| Darlington    | S. C. Disher      | Darlington         |
| Fairfield     | D. G. Belton, Jr. | Winnsboro          |
| Florence      | H. S. Person      | Florence           |
| Greenville    | Robt. W. Anderson | Greenville         |
| Greenwood     | L. V. Walker      | Greenwood          |
| Orangeburg    | G. W. Daniels     | Orangeburg         |
| Richland      | J. E. Dickson     | Columbia           |
| Spartanburg   | W. C. Bunch       | Spartanburg        |
| Sumter        | Jason Maloney     | Sumter             |
| Union         | E. N. Williams    | Union              |
| Williamsburg  | Van Buren Thomas  | Kingstree          |
| York          | Booker T. Miller  | Rock Hill          |

Note: All negro agents have B.S. Degrees from State College at Orangeburg, or the equivalent from other institutions.



# HOME DEMONSTRATION EXTENSION DEPARTMENT

The United States Department of Agriculture, Clemson College and  
Winthrop College Working in Cooperation

LONNY I. LANDRUM, B.S.---State Home Demonstration Agent, Rock Hill  
HARRIETTE B. LAYTON---Assistant Home Demonstration Agent, Rock Hill  
BESSIE HARPER, B.A.-----District Agent, Aiken  
THEODOSIA DARGAN PLOWDEN-----District Agent, Route 3, Sumter  
JUANITA NEELY, B.A., M.S.-----District Agent, Rock Hill  
DORA DEE WALKER, B.A.---Production and Conservation Specialist, Appleton  
HARRIET F. JOHNSON, B.A., B.S., M.A.---State Girl's Club Agent, Rock Hill  
JANE KETCHEN, B.S.-----Marketing Specialist, Rock Hill  
ELIZABETH WATSON, B.S.-----Clothing Specialist, Rock Hill  
MYRA REAGAN, B.A., M.S.-----Extension Nutritionist, Rock Hill  
ELEANOR CARSON, B.A.-----Poultry Specialist, Rock Hill  
PORTIA SEABROOK, B.A.-----Home Management Specialist, Rock Hill

## COUNTY HOME DEMONSTRATION AGENTS

| <i>County</i> | <i>Name</i>                      | <i>Post Office</i> |
|---------------|----------------------------------|--------------------|
| Abbeville     | Elizabeth Herbert, A.B.          | Abbeville          |
| Aiken         | Ann Elizabeth Monroe, B.S.       | Aiken              |
| Allendale     | Mamie Sue Hicks, B.S.            | Allendale          |
| Anderson      | Ella Burton, B.S.                | Anderson           |
| Bamberg       | Marie Lambert, B.S.              | Bamberg            |
| Barnwell      | Elizabeth McNab, A.B.            | Barnwell           |
| Beaufort      | Mary Ellen Eaves, A.B., B.S.     | Beaufort           |
| Berkeley      | Laura Connor, B.S.               | Moncks Corner      |
| Calhoun       | Lula Chriesman                   | St. Matthews       |
| Charleston    | Caroline S. Alston               | Charleston         |
| Cherokee      | Eloise Johnson, B.S.             | Gaffney            |
| Chester       | John'gy Richards, B.S.           | Chester            |
| Chesterfield  | Kerby Tyler                      | Chesterfield       |
| Clarendon     | Carrie Carson, B.S.              | Manning            |
| Colleton      | Isobel Patterson, B.S.           | Walterboro         |
| Darlington    | Emmie J. Evans                   | Darlington         |
| Dillon        | Etta Sue Sellers, B.A.           | Dillon             |
| Dorchester    | Ophelia Barker, B.S.             | St. George         |
| Edgefield     | Laura Mellette, B.S.             | Edgefield          |
| Fairfield     | Susan Pender, B.S.               | Winnsboro          |
| Florence      | Anne Moss Moore, B.S.            | Florence           |
| Florence      | Nancy Hinson, B.S. (Asst. Agent) | Lake City          |
| Georgetown    | Vela Smith, B.S.                 | Georgetown         |
| Greenville    | Julia W. Stebbins                | Greenville         |
| Greenville    | Lila Moore, B.S.                 | Greenville         |
| Greenwood     | Carolyn Avinger, B.S.            | Greenwood          |
| Hampton       | Izora Miley                      | Hampton            |
| Horry         | Margaret Cloud                   | Conway             |

|              |                                    |               |
|--------------|------------------------------------|---------------|
| Jasper       | Gertrude Lanham, B.S.              | Ridgeland     |
| Kershaw      | Margaret Fewell, B.A.              | Camden        |
| Lancaster    | Jennie Robinson, B.S.              | Lancaster     |
| Laurens      | Jennie E. Coleman                  | Laurens       |
| Lee          | Sallie Pearce                      | Bishopville   |
| Lexington    | Mattie Lee Cooley, A.B., B.S.      | Lexington     |
| McCormick    | Matilda Bell, B.S.                 | McCormick     |
| Marion       | Hazel Smith, B.S.                  | Marion        |
| Marlboro     | Janie McDill, B.A., B.S.           | Bennettsville |
| Newberry     | Ethel Counts, B.A.                 | Newberry      |
| Oconee       | Mary C. Haynie, B.A.               | Walhalla      |
| Orangeburg   | Louise Fleming                     | Orangeburg    |
| Orangeburg   | Huldah Pearson, B.S. (Asst. Agent) | Orangeburg    |
| Pickens      | Sarah G. Cureton, B.S.             | Pickens       |
| Richland     | Winnie Belle Holden, B.A.          | Columbia      |
| Saluda       | Pearle Calvert                     | Saluda        |
| Spartanburg  | Kate M. Hooper                     | Spartanburg   |
| Sumter       | Jean Reid, B.S.                    | Sumter        |
| Union        | Mahala J. Smith                    | Union         |
| Williamsburg | Elizabeth D. Boykin, A.B.          | Kingstree     |
| York         | Margaret Martin, B.S.              | Rock Hill     |

## NEGRO HOME DEMONSTRATION AGENTS

Marion B. Paul, State Supervisor Negro Home Demonstration Work,  
State College, Orangeburg, S. C.

| <i>County</i> | <i>Negro Agents' Names</i>  | <i>Address</i> |
|---------------|-----------------------------|----------------|
| Aiken         | Matred McKissick            | Aiken          |
| Allendale     | Rosa Reed                   | Allendale      |
| Allendale     | Susie Bivens (Asst. Agent)  | Allendale      |
| Beaufort      | Willie Mabel Price          | Frogmore       |
| Beaufort      | Gladys Hurley (Asst. Agent) | Frogmore       |
| Charleston    | Albertha DeVeaux            | Charleston     |
| Dorchester    | Mattie E. Overstreet        | St. George     |
| Florence      | Lillian Brown               | Florence       |
| Georgetown    | Rosa G. Gadsden             | Georgetown     |
| Greenville    | Delphenia Wilkerson         | Greenville     |
| Marlboro      | Minnie Gandy                | Clio           |
| Newberry      | Laura Manney                | Newberry       |
| Orangeburg    | Marie B. Blakemon           | Orangeburg     |
| Richland      | Frances Thomas              | Columbia       |
| Spartanburg   | Ethel Taggart               | Spartanburg    |
| Sumter        | Janie Rucker                | Sumter         |

Note: All negro Home Demonstration Agents have had college training in home economics.

## PART II—INFORMATION

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### REQUIREMENTS FOR ADMISSION

*General.* All applicants for admission to Clemson College must be at least sixteen years of age and at the time of entrance must be free from contagious or infectious disease. A certificate of good moral character and honorable discharge from the last school attended is required.

*Application Blanks.* Blanks to be used in applying for admission may be obtained from the Registrar, Clemson College, Clemson, South Carolina.

*Admission by Certificate.* Graduates from accredited high schools who have completed at least sixteen standard high-school units, including three units in English, two and one-half in mathematics, and one in history, are admitted to the freshman class without examination. A complete statement of the applicant's high-school record must be submitted by the high-school principal on the regular application blank. If he has attended another college, a transcript of that record and a statement of honorable discharge must be submitted.

*Admission by Examination.* Students who do not meet the requirements given above may be admitted to the college by passing the entrance examinations. For the dates of these examinations see the college calendar.

*Admission by Certificate and Examination.* Applicants who are not graduates of accredited high schools, but who can give acceptable documentary evidence of having completed the equivalent of a high-school course under formal instruction, will be required to pass examinations on English, mathematics, history, and one other subject selected by the Registrar. These examinations are held at the same time as the regular entrance examinations.

*Admission to Advanced Standing.* Work that has been taken in other colleges will be credited for an equivalent amount of work so far as it applies to any course offered in the College. The applicant must present: (a) a letter of honorable dismissal from the institution last attended, and (b) an official transcript of his record, including entrance credits. College credits given by transfer are provisional and may be cancelled at any time if the student's work is unsatisfactory. A student coming from another institution must spend at least one regular session in the College before he is eligible to apply for a degree.

*Matriculation.* Students upon arrival at the College at the opening of the session must report at once to the Registrar's Office. New students will be directed in the procedure necessary to complete their enrollment. A student's matriculation with the College is equivalent to his pledge to conform to the rules of the institution. Any admission gained or matriculation made irregularly is subject to cancellation.

### EXPENSES

*Settlement of College Fees.* The Treasurer of the College is the financial officer and all transactions relating to payments must be conducted through him. The first quarterly payment must be made before a student can be assigned to a room in barracks or permitted to begin work. Remittances should be made in cash, money order, cashier's check, or by local check *made payable to S. W. Evans, Treasurer.* All remittances made by mail must be addressed to: *The Treasurer, Clemson College, Clemson, S. C.* A personal check which is given in payment of dues and is returned by the bank unpaid automatically cancels a student's reservation and automatically drops from class rolls a student who is in school.

*Expenses:* Considering the standard of living and quality of instruction, Clemson is one of the most economical colleges in the country. Based on conditions in 1938-1939 the cost to South Carolina students for board, laundry, room, hospital, other fees,



and tuition (but not uniform) is \$314.30 for the session. The legal residence of the parent, or guardian, determines the tuition status of the student. Students from other states pay \$155.00 for out-of-state tuition. This is \$90.00 in addition to the \$65.00 paid by South Carolina students. The Treasurer is required to collect in full the amounts due on dates specified. The expenses are due in four installments as indicated below.

*Uniform:* The total cost of complete new uniform required for Freshmen, or new students, for 1938-1939 was \$73.32. Students in upper classes use serviceable uniform articles on hand. The average cost of uniform for upperclassmen for the 1938-1939 session was \$16.94 for Sophomores, \$37.18 for Juniors, and \$14.28 for Seniors.

The payments at entrance to cover board, laundry, room, hospital, other fees, tuition, and *uniform* for first quarter of session 1938-1939 were as follows:

| <i>First Quarter</i> | South Carolina<br>Students | Out-of-State<br>Students |
|----------------------|----------------------------|--------------------------|
| New Students -----   | \$158.87                   | \$181.37                 |
| Sophomores -----     | 102.49                     | 124.99                   |
| Juniors -----        | 122.73                     | 145.23                   |
| Seniors -----        | 99.83                      | 122.33                   |

Subsequent payments for students in all classes were due according to the following schedule:

| Payment        | Date Due          | South Carolina<br>Students | Out-of-State<br>Students |
|----------------|-------------------|----------------------------|--------------------------|
| Second Quarter | November 24, 1938 | \$76.25                    | \$98.75                  |
| Third Quarter  | February 6, 1939  | 76.25                      | 98.75                    |
| Fourth Quarter | April 7, 1939     | 76.25                      | 98.75                    |

Any uniform allowance made to R. O. T. C. students by the Federal Government will be credited to the individual's dues for the Fourth Quarter, when the full amount of the com-

mutation is received by the College. All other R. O. T. C. payments are made by the Government directly to the student.

*Note:* The expenses given above are for regular cadets who live in the dormitories. Under certain regulations, and with the approval of the President, a student may become a Day Cadet or Day Student. A Day Cadet is a member of the corps who rooms and boards outside of barracks. A Day Student is a member of the student body who is not a member of the cadet corps.

*Refunds:* Refunds will be made under the following rules:

1. A refund of *all* moneys, except matriculation fee of \$3.00 and \$1.00 per day for board, etc., will be made for a student who withdraws from College within ten days of the date of his matriculation, with the provision that the refund for uniform cannot be guaranteed for items tailored to individual measure.

2. A refund of moneys collected for board, laundry, and barracks heat, light, and water at the rates charged will be made for a student who withdraws subsequent to the first ten days after matriculation. This also applies to interruptions exceeding fifteen days, not including holiday periods.

3. A refund of moneys collected for uniform will be made for a student who withdraws from College on articles issued to him and returned unused, except garments tailored to measure; and on articles for which he has paid but which have not been issued to him, except articles tailored to measure which are in process of manufacture.

4. A refund for a student will be made to his parents, or guardian, except that for uniform cancellation approved by the Commandant, which refund will be made direct to the student.

5. The College will not be liable for articles lost or stolen in the barracks.

6. The College will not be liable for lost or damaged laundry unless reported within two days after the date upon which the laundry was due to be delivered, and then not more than the actual depreciated value of such articles as have been lost or damaged.

*Student Banking Accounts.* For the convenience of students the College operates a banking department in the Treasurer's office where money can be deposited and withdrawn as the occasion may demand. This service is purely local. Students are urged to deposit their money in the bank and not to keep it in their rooms.

*Books and Supplies.* The L. C. Martin Drug Co., Inc., conducts a store near the campus and maintains a book and supply store where students may purchase textbooks, drawing instruments, and other supplies. A complete list of the textbooks used in each course, together with their prices will be furnished on application to the book store.

Each student will be required to own his textbooks and necessary equipment. All students shall submit their textbooks and other equipment for inspection at such times as are ordered.

*Optional Expenses.* It is not possible to give an estimate of a student's expenditures for such amusements as dancing, moving pictures, etc. This depends largely upon the disposition of the young man. The College endeavors to reduce to a minimum the temptation to spend money needlessly, but the authorities cannot be responsible for a student's private expenditures. This must be a matter between him and his parents.

*Transcripts.* Transcripts of scholastic records are not issued to students who have not been graduated. However, a transcript will be sent to any institution or other recognized rating agency upon request. One transcript is furnished free; additional copies are issued for one dollar each. Remittances for transcripts should be made payable to The Treasurer, Clemson

College, but should accompany transcript requests and should be mailed to The Registrar.

*Student Aids.* There are few opportunities for students to earn money at Clemson by working in their spare time. In an agricultural and mechanical college most of the student's time when he is not in the classroom is occupied in laboratories, shops, and field work. About forty young men secure positions as waiters in the mess hall, for which service they are paid at the rate of about eight dollars a month. These positions are filled by the Mess Officer, to whom all correspondence should be addressed. In addition to this help, membership in the Reserve Officers Training Corps entitles freshmen and sophomores to a small commutation on uniforms. Juniors and seniors receive also a ration commutation.

### LOAN FUNDS

*John Bryce Baskin Fund.* Interest on \$2,000.00 given by Cecil L. Reid, of the Class of 1902, as an appreciation of the aid given him by Mr. Baskin. This fund is "available to any resident of South Carolina but if all other things are equal, preference is to be given the boy or boys from York or Newberry Counties, South Carolina."

*The William Wilson Finley Loan Fund.* The sum of \$1,000 has been deposited with the College to be used as a loan fund to students living in counties traversed by the Southern Railway or the Blue Ridge Railway.

*The George Cherry Foundation.* Mrs. Mary Cherry Doyle has donated \$1,000 to aid worthy and needy students from Oconee County and that part of Anderson County including Pendleton. This fund is not available for first-year students.

*The U. D. C. Loan Fund.* The John C. Calhoun Chapter of the U. D. C. has created a fund of \$500.00 to be loaned to lineal



descendants of the Confederate veterans. This fund is limited to juniors and seniors.

*Clemson Student Loan Association Fund.* In the spring of 1930 President Sikes invited a number of interested teachers, officers, alumni, and friends of Clemson College to meet for the purpose of raising funds to be loaned to worthy Clemson students who were already in college. Many responded. Officers were elected; a constitution and by-laws adopted. Twelve hundred dollars has already been realized through gifts and annual membership dues, which are five dollars per year. There are seventy-six members. Anyone desiring to assist young men in this way should communicate with Mr. W. K. Livingston, Greenville, S. C., who is president of the organization, or Mr. J. C. Littlejohn, Business Manager, Clemson, S. C.

The College is in need of funds to lend worthy students. Donations for this or other purposes may be made to the Board of Trustees of Clemson College, or to the Trustees of the Clemson Alumni Foundation. The President of the College or the Secretary of the boards named above will be glad to communicate with any person who is interested in establishing such a fund.

### ANDERSON FELLOWSHIP

*The Alexander P. Anderson and the Lydia Anderson Fellowship.* Mr. and Mrs. Anderson have given to the Clemson Agricultural College the sum of \$10,000 for the purpose of establishing a fellowship fund. The income from this trust fund is to be used for the purpose of awarding a scholarship or fellowship to one or more Clemson graduates for advanced work in biological sciences including bacteriology and entomology. The scholarship is to be awarded annually by the faculty of the Clemson Agricultural College to an outstanding student. The name of the beneficiary is reported to the Board of Trustees, and an accounting of the funds by the Treasurer of the College is made annually.

### SEARS ROEBUCK SCHOLARSHIPS

*The Sears Roebuck Agricultural Foundation* has made available for freshman agricultural scholarships at Clemson the sum of \$2500 for the 1937-1938 session and \$2250 for the 1938-1939 session of the college.

### BUILDINGS AND GROUNDS

*Buildings.* The Administration Building houses the offices of the President, the Registrar, the Commandant, the Treasurer, the Business Manager, the Professor of Military Science and Tactics, and the Dean of the School of General Science. This building also has over twenty classrooms. At the north end of the building is Memorial Hall, the College Auditorium, with a seating capacity of about eighteen hundred.

The Library Building houses the main library of the college and the experiment station library. There are in the library approximately twenty-three thousand books and twenty thousand bound volumes of periodicals, experiment station bulletins, and government publications. The departmental libraries also contain a number of volumes pertaining especially to the work of the department concerned.

The instructional work of the institution is maintained largely in the departmental buildings. The Schools of Agriculture, Engineering, Textiles, Vocational Education, and Chemistry have individual buildings especially designed for their purposes. The School of General Science is located in the Administration Building. Certain laboratory work is conducted at the greenhouses, live stock barns, poultry plant, veterinary hospital, and other buildings on the college farm.

The cadet barracks consist of seven large brick buildings—four of which were constructed during 1936. All barracks are steam-heated, electrically-lighted, and supplied with hot and cold water. The six hundred and fifty rooms in the barracks are

furnished with single-width iron cots and other necessary equipment.

The Hospital, located about a quarter of a mile from the barracks, is a wooden building, especially designed for the purpose. The equipment includes a Victor X-ray machine, a new Burdick ultra-violet ray machine, and a sorensen machine of the latest design for ear, eye, nose, and throat treatments.

The Y. M. C. A. building is a four-story structure equipped with club rooms, lounge rooms, game rooms, and has in addition, thirty rooms available for permanent roomers, guests, and transients. Having an auditorium, gymnasium, and swimming pool, the Y. M. C. A. building is admirably fitted to serve as the center of social activities and voluntary religious work.

The Physical Education Building at present consists of the Field House and the Gymnasium. Construction of the Alumni section which is to be a part of the Physical Education plant, has been begun.

The Laundry, which is operated exclusively for the students, is a brick building, equipped with improved modern machinery.

The Clemson College Hotel, a frame building, is situated on a hill overlooking the campus. This building and numerous brick and frame residences furnish homes for most of the college teachers and officers.

Fort Hill, the former home of John C. Calhoun, is located on the Clemson campus. In accordance with the provisions of Mr. Clemson's will, this residence has been made a shrine in honor of Mr. Calhoun. Several pieces of furniture and other interesting relics, formerly the property of Mr. Calhoun, are carefully preserved in this home, where they may be seen by visitors to the college.

*Grounds.* The college grounds comprise about 1,544 acres, including the campus, the farm, and the Experiment Station grounds. The two-hundred acre campus is laid out in walks, drives, and lawns, and is shaded by a beautiful grove of native forest trees.

### *LIVING CONDITIONS*

At Clemson students live in barracks under military discipline. A student must at all times be present or accounted for. The barracks or dormitories are divided into "halls" for military purposes, a unit being assigned to a hall under the supervision of a cadet officer.

Cadet officers remain on duty both day and night at the guard room, in which is located a long-distance telephone with twenty-four hour service.

Each student room is equipped with necessary furniture. The beds are single width. Bed linen, bed covers, pillows, and towels must be furnished by the students.

All students are required to provide themselves with two mattress covers and two clothes bags. These are regulation articles and can be secured only at the College. One set will likely serve for use during the four years.

The dining hall, or mess hall, is located in Barracks No. 1. It is well equipped and is under the supervision of the mess officer. The kitchen and cold storage plant are among the best in the South. All students living in the barracks eat in the dining hall.

### *RESERVE OFFICERS' TRAINING CORPS*

Under the provisions of the National Defense Act, the War Department has established at Clemson College an infantry unit of the Reserve Officers' Training Corps. All students of



the College, unless excused by the President, are required to take a minimum of three hours per week of military training. To be admitted to membership in the corps and to receive the privileges connected therewith, juniors and seniors must be recommended by the President and the Professor of Military Science and Tactics. All members at the completion of the junior class will be required to attend a summer camp, where their expenses will be paid by the Federal Government. After graduation the student may upon the recommendation of his instructors receive a commission in the Officers' Reserve Corps.

### *STUDENT HEALTH SERVICE*

The Surgeon, who has complete charge of the hospital, is one of the regular officers of the College, and his special duty is to look after the health of the students.

At a specified time every day, students who desire may consult the Surgeon, and those who are admitted to the hospital are cared for by experienced nurses in the college hospital. In case of necessity students are allowed to consult the Surgeon at any time, or to send for him in an emergency.

The Surgeon cannot undertake to notify parents every time a student reports to the hospital for medicine, or for rest on account of some slight complaint. However, they may rest assured that they will be notified at once of sickness of any consequence.

The medical fee paid by each student is intended to cover all ordinary cases of sickness and their treatment. It is not intended to cover fees of doctors or specialists called into consultation, for performing operations, for special nurses, or for any medical or surgical attentions performed away from the College; and the College does not assume any responsibility for accidents that happen away from the College. Such expenses must be borne by the parents. The right of the College Surgeon, with the approval of the President of the College, to incur in

behalf of any student under his care any of these extra services is hereby expressly reserved.

Intramural athletics are encouraged and sponsored by the physical education department and the Y. M. C. A. The various companies under the military organization have teams in such sports as volley ball, basketball, baseball, and soccer. These competitive games have drawn much interest and enthusiasm. At Clemson about two-thirds of the student body participate at one time or another in some intramural sport. Participation is voluntary, but the majority of the students take advantage of the opportunity for wholesome recreation and physical development.

### *RELIGIOUS INFLUENCES*

Clemson cooperates with the various churches and the Young Men's Christian Association in the religious training of its students. Denominations not having churches in the community have facilities provided in the Y. M. C. A. building for their services.

Five denominations: Baptist, Episcopal, Methodist, Presbyterian, and Roman Catholic, have erected churches in the community. Students are required to attend the Sunday morning services. Arrangements are made for services for students of other denominations. Sunday schools and young people's church societies are maintained by the local churches. Attendance upon the services of these organizations is voluntary.

Courses in Religion, which are credited as free electives, are offered. This work is not financed by the College. For information regarding these courses see the description of courses.

### *HISTORICAL STATEMENT*

In 1889, the General Assembly of South Carolina accepted the bequest of Thomas G. Clemson, which set aside the

bulk of the Clemson estate for the founding of a scientific and technical college. The institution was also established under the Morrill Land-Grant Act passed by the National Congress in 1862. Clemson College, therefore, is the Agricultural and Mechanical College of South Carolina and is a member of the national system of Land-Grant Colleges and Universities.

The nature of the institution is outlined in Mr. Clemson's will and its acceptance by the legislature.

The will in part reads:

“Feeling a great sympathy for the farmers of this State, and the difficulties with which they have to contend in their efforts to establish the business of agriculture upon a proper basis, and believing that there can be no permanent improvement in agriculture without a knowledge of those sciences which pertain particularly thereto, I have determined to devote the bulk of my property to the establishment of an Agricultural College upon the Fort Hill Place. My purpose is to establish an Agricultural College which will afford useful information to the farmers and mechanics; therefore it should afford thorough instruction in agriculture and the natural sciences connected therewith; it should combine, if practicable, physical with intellectual education, and should be a high seminary of learning in which the graduate of the common schools can commence, pursue and finish a course of studies terminating in thorough theoretic and practical instruction in those sciences and arts which bear directly upon agriculture. \* \* \* \* but to always bear in mind that the benefits herein sought to be bestowed are intended to benefit agriculture and mechanical industries. \* \* \* \* I trust I do not exaggerate the importance of such an institution for developing the material resources of the State, by affording its youth the advantages of scientific culture.

“The desire to establish such a school or college as I have provided for in my said last will and testament, has existed

with me for many years past, and many years ago I determined to devote the bulk of my property to the establishment of an Agricultural School or College. To accomplish this purpose is now the one great desire of my life."

This will gave all that part of the Fort Hill Estate inherited by Mrs. Clemson from her mother and the bulk of Mrs. Clemson's other real and personal property. The latter amounted to a sum, which, considering the purchasing power at the time, probably has been only a few times exceeded in a public benefaction in South Carolina.

A Board of Trustees of seven members was provided for: R. W. Simpson, D. K. Norris, M. L. Donaldson, R. E. Bowen, B. R. Tillman, J. E. Wannamaker, and J. E. Bradley, who with those chosen by the General Assembly should constitute a governing board in case the State accepted the bequest; but, who, in case the State declined the bequest, should alone constitute a governing board for a private institution.

These seven trustees, along with other friends of the movement, and the agricultural groups in the State developed and organized a public opinion favorable to the plan.

In November, 1889, the General Assembly of South Carolina accepted the terms of the will, and, following the decision of the United States Supreme Court to uphold the will, the State of South Carolina and the full Board of Trustees proceeded to convert the dream of Thomas G. Clemson into the reality of Clemson College.

The College was formally opened in July, 1893, with an enrollment of 446 students. The first graduating exercises were held in December, 1896, with a graduating class numbering thirty-six—fifteen in the agricultural courses and twenty-one in the engineering courses.



|                                  | 1937-1938 | Total  |
|----------------------------------|-----------|--------|
| ENROLLMENT—REGULAR SESSION ..... | 1,912     | 16,539 |

*Graduates by Courses:*

|                                         |     |       |
|-----------------------------------------|-----|-------|
| Agriculture .....                       | 51  | 1,796 |
| Agricultural Engineering .....          | 10  | 40    |
| Architecture .....                      | 6   | 138   |
| Civil Engineering .....                 | 8   | 354   |
| Electrical Engineering .....            | 18  | 451   |
| Mechanical Engineering .....            | 13  | 207   |
| Mechanical Electrical Engineering ..... | 0   | 528   |
| Education .....                         | 2   | 4     |
| Engineering Industrial Education .....  | 0   | 68    |
| Chemistry .....                         | 7   | 155   |
| General Science .....                   | 38  | 262   |
| Textile Engineering .....               | 31  | 401   |
| Textile Chemistry .....                 | 11  | 87    |
| Textile Industrial Education .....      | 3   | 79    |
| Weaving and Designing .....             | 5   | 26    |
| Bachelor of Science .....               | 0   | 1     |
| Vocational Agricultural Education ..... | 38  | 110   |
| Industrial Education .....              | 6   | 29    |
| Chemical Engineering .....              | 14  | 14    |
|                                         | 261 | 4,750 |

*LOCATION*

The College is located on the Fort Hill homestead of John C. Calhoun, in the picturesque foothills of the Blue Ridge. It has an elevation of 800 feet above sea level and commands an excellent view of the mountains to the north and west, some of which attain an altitude of nearly five thousand feet.

The College is located at Clemson, S. C., which is one mile from Calhoun, a town on the main line of the Southern Railway, and four miles from Pendleton, on the Blue Ridge Railway. State Highways number 13 and 24 pass through Clemson, and daily bus service at regular intervals is available.

*CLEMSON COLLEGE ALUMNI CORPORATION*

The Alumni Corporation has established a permanent office on the campus. The office is in charge of a secretary, who is elected by the Board of Directors of the Corporation. The

Clemson office is a clearing house for all matters concerning the alumni. In addition to keeping accurate records of addresses and information concerning alumni, the Corporation has established at the Clemson headquarters a bureau for repairing Clemson class rings, and for securing duplicates of these rings.

The Corporation holds its regular annual meeting at the College on Monday of Commencement. At this meeting all officers are elected. The Secretary is elected by the Board of Directors which is in turn responsible to the general Corporation for the conduct of its business. The purpose of the Alumni Corporation is to serve the College and the alumni in every possible way. All correspondence regarding its affairs is conducted through the Clemson office.

Graduates and former students are requested to keep the Alumni Office informed as to changes of address, occupation, and other matters that will be of interest to those in charge of Alumni Records and mailing lists.

## PART III—STUDENT LIFE AND ACTIVITIES

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### CADET MILITARY ORGANIZATION

Clemson College is operated as a military school,—not for the purpose of making soldiers, but in order that the students may learn the importance of loyalty and obedience to authority, and acquire the habit of being courteous, systematic, and punctual.

The military system places every student on an equal standing. All cadets wear the uniform, live under the same conditions, and are subject to the same privileges and restraints.

The military system does not in any way interfere with the regular college work, but on the other hand enables it to maintain a higher level of efficiency. Military training is a feature that gives to Clemson's graduates an advantage which is an important factor in their future progress and success.

### CLUBS AND SOCIETIES

*Honor Fraternities.* Honor scholarship organizations, including Tau Beta Pi, Sigma Tau Epsilon, Phi Psi, Alpha Zeta, Alpha Tau Alpha, and Iota Lambda Sigma, give recognition to superior work done by Engineering, General Science, Textile, Agricultural, Agricultural Education, and Industrial Education students respectively.

The military activities of the cadet officers of the corps are recognized in membership in the Society of Scabbard and Blade, a national military honor fraternity.

The Blue Key, a national fraternity based upon leadership, has a chapter at Clemson.

*Student Clubs.* Students majoring in various courses of instruction have organized clubs. Among such clubs are in-

cluded the Agricultural Economics Club, the Dairy Club, the Horticultural Club, the Minaret Club (an architectural organization), and the Athanor (a chemical society).

Two literary societies, the Calhoun and the Palmetto, furnish a valuable supplement to scholastic work.

*Engineering Societies.* Outstanding students majoring in engineering courses are selected for membership in the Student Chapter of the American Institute of Electrical Engineers, American Society of Mechanical Engineers, and the American Society of Civil Engineers.

### *THE YOUNG MEN'S CHRISTIAN ASSOCIATION*

The Y. M. C. A. at Clemson is a composite of a Student Y. M. C. A., a City Y. M. C. A., a Community Building, and a Student Union. Hundreds of basketball and volley ball games are participated in by students, faculty, and campus children. Approximately a hundred social functions sponsored by the Y. M. C. A., or with the Y. M. C. A. cooperating, are held in the building during the year. Evening Watch Prayer groups and Bible discussion groups meet regularly on each company hall. More than half of the students take part in these meetings, with approximately forty faculty men assisting in leadership.

The Young Men's Christian Association has supervision of voluntary religious activities of the students and endeavors to contribute to the religious, social, and physical life of the college community.

The Sunday night union services held at the Y. M. C. A. are attended by approximately four hundred each Sunday night. It is here that the Y. M. C. A. presents visiting student groups as well as speakers, ministers, and other religious leaders.



## ATHLETICS

It is the policy of the College to sanction and encourage athletics so long as participation does not interfere with studies and other duties. Football, baseball, basketball and track are the most popular sports. The College is a member of the Southern Conference and of the South Carolina Intercollegiate Athletic Association.

*Intercollegiate Athletics.* For the regulation of intercollegiate athletics, the faculty has adopted the following rules:

1. At the end of each grading period, the faculty athletic committee will canvass the records of athletes; and if any are found to be so deficient as to endanger their scholastic standing, they will be withdrawn from the squad.

2. In order to participate in intercollegiate contests, each athletic team may be allowed a maximum absence of ten days during the session (Saturday afternoon, Sunday and holidays not to be included). No one contestant or representative shall be allowed to leave the campus for more than twenty days during the session, except at the discretion of the faculty athletic committee.

3. No member of an athletic team shall be eligible for a managerial position in any other branch of sport.

4. No team shall be allowed to leave the college grounds to participate in any match game unless accompanied by an authorized coach or other member of the faculty, who shall be responsible to the college for the conduct of the players while away.

5. No student shall be eligible to participate in an intercollegiate contest who is away from the College without proper authority or without having complied with all the rules or orders issued by the President regarding such matters.

6. It shall be the duty of the faculty athletic committee to see that the foregoing rules and regulations are strictly enforced.

### MEDALS AND HONORS

*Trustees' Medal.* The Board of Trustees has provided for a gold medal to be awarded annually at Commencement to the best speaker among the representatives of the literary societies. The medal was won in 1938 by Cadet J. J. Lever, Cayce, South Carolina.

*Norris Medal.* The following is from the will of Hon. D. K. Norris, a life trustee of Clemson, who died in 1905:

"I give \$500 face value, Norris Cotton Mill stock . . . on condition the dividend thereon shall be applied annually to the purchase of a gold medal, to be known as the 'Norris Medal', to be awarded to the student of Clemson meriting the same at graduation, under such rules and conditions as may be prescribed by the said Board of Trustees, and which medal shall have engraved on it 'Honor habet onus' (Honor brings responsibility)."

In 1938 the medal was awarded to Cadet E. C. Ray, Andrews, South Carolina.

*R. W. Simpson Medal.* A medal designated as the "R. W. Simpson Medal" is awarded annually to the best drilled cadet in the freshman, sophomore, or junior class. In 1938 the medal was awarded to Cadet C. E. Littlejohn, Raleigh, North Carolina.

*Arnold R. Boyd English Honor Key.* Arnold R. Boyd, '14, now a lawyer in New York, donates this Honor Key annually to the student in the graduating class who makes the highest average in English during his college course. In 1938 this key was awarded to Cadet P. K. Switzer, Union, South Carolina.

*Architect's Medal.* The South Carolina Chapter of the American Institute of Architects each year awards a medal to the outstanding junior or senior in Architecture. In 1938 the medal was awarded to Cadet J. W. Linley, Jr., Anderson, South Carolina.

*Farmers' Certificate of Merit.* Beginning with the session of 1914-1915 certificates of merit have at times been awarded to two farmers in South Carolina who have rendered distinguished service in the agricultural development of the State.

*National Association of Cotton Manufacturers Medal.* For several years this medal has been awarded to the outstanding graduate in Textile Engineering. In 1938 the medal was won by Cadet Harry Geisberg, Anderson, South Carolina.

## PART IV—ORGANIZATION AND GOVERNMENT

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### ADMINISTRATIVE ORGANIZATION

*Board of Trustees.* The government of the College is vested in a Board of thirteen members, six of whom are elected by the Legislature, and seven life and self-perpetuating under the Clemson will. The function of this Board is legislative and not executive. The Board determines the general policy of the College, makes the laws for its government, and directs the expenditure of its funds.

*The President* is the chief executive and administrative officer of the Board of Trustees. He is the head of the College and is responsible for its satisfactory working and success.

*The College* is divided into schools of Agriculture, Chemistry, Engineering, General Science, Textiles, and Vocational Education. A dean is at the head of each school and is responsible to the President for its conduct and success. The schools are comprised of departments. Each department is in charge of a professor who acts as its head. The President conducts all official business with each department through its dean.

*The Faculty* consists of all officers of instruction in the College. The voting members are the deans, professors, associate professors, and assistant professors.

The faculty meets at least once a month, or whenever called by the President, and is an advisory body to the President, on the instructional work of the College and such other business as he may bring before it.

The deans and directors of the various schools and departments meet weekly or when called by the President for consideration of matters affecting the welfare of the College. Departmental faculty meetings are held periodically.



*Faculty Committees.* In order to aid him in his executive duties and to carry on the instructional work of the College, the President appoints committees from the faculty. To these are assigned certain specified lines of work and the committees are clothed with full authority.

*The Discipline Committee.* The Discipline Committee is composed of six directors of departments and two full professors elected annually by the Board of Trustees. This committee constitutes the court of the College and tries cadets charged with serious offenses under the regulations. The President is the reviewing authority of the Discipline Committee, and may at his discretion set aside or modify the sentences imposed. A parent, or a cadet over age, has the right to appeal from the sentence of the Discipline Committee to the Board of Trustees, provided the appeal is lodged with the President of the College within thirty days. This appeal must be forwarded to the President of the Board of Trustees, who, if he deems the appeal meritorious, shall present it at the next regular or called meeting of the Board.

All trials by the Discipline Committee are open to the public and all testimony is taken under oath and recorded stenographically as is in a civil court. A student on trial may have some member of the faculty to assist him in his defense if he so desires.

### MILITARY ORGANIZATION

*The President.* The President of the College shall have general command and government of the institution, watching over its administration, discipline, and instruction. He shall have authority to make rules from time to time, governing the granting of permits and furloughs to cadets; to inspect anything in a cadet's room or personal baggage; to suspend or modify these regulations, or to publish special regulations when he considers it necessary, which shall have the authority of the Board of Trustees until they shall act on the same. He shall prescribe the hours of study, drill, and recreation.

*Commandant.* The Commandant of Cadets, under the President, has supervision of the discipline of the Corps of Cadets. He shall prescribe the order in which the furniture, bedding, books, clothing equipment, etc., shall be arranged throughout the barracks and shall make a thorough inspection of the rooms, furniture, arms, equipment and uniforms of the cadets at least once each week. He shall have the right to inspect anything in a cadet's room or personal baggage. He shall perform such other duties as are prescribed in the regulations. He shall have the rank of Colonel.

*Assistant Commandants.* The Assistant Commandants shall perform such duties as may be prescribed for them by the President or Commandant.

*Military Instruction.* All students, excepting such students as are excused by the President, must take a minimum of three hours military instruction per week. All who pass the required physical examination must take the Basic Course prescribed by the War Department for the R. O. T. C. during their freshman and sophomore years.

Members of the junior and senior classes are selected by the Professor of Military Science and Tactics, subject to the approval of the President, to take the Advanced Course prescribed for the R. O. T. C., receiving certain financial benefits allowed by the Federal Government.

*Cadet Officers and Non-commissioned Officers.* The cadet officers and non-commissioned officers are appointed by the Professor of Military Science and Tactics, subject to the approval of the President. When practicable they shall be appointed from members of the R. O. T. C. who have been most studious and soldier-like in the performance of their duties and most exemplary in their conduct. No cadet may decline any office to which he may be appointed.

As a rule the officers shall be appointed from the senior class, the non-commissioned officers, except corporals, from the junior class, and the corporals from the sophomore class.

*Study Hours.* Study hours are those parts of the day which are designated for study and shall be prescribed in orders. All hours at which a student has no classes or other duties may be used as study hours and students are expected to use vacant hours during the day as well as the study period after supper for study.

*Class Attendance.* Punctuality in the attendance of classes and other prescribed duties is required at Clemson College. However, to allow for personal emergencies, a limited number of class absences is allowed, under the provisions of the class attendance regulations.

*Furloughs.* Every cadet is responsible for his class absences whether he is on a furlough or at the college. Restrictions regarding class absences are explained in the class attendance regulations. Any cadet who has been granted a furlough and who stays over the time stipulated, unless for sickness or other reason acceptable to the Commandant, will be administered a punishment not to exceed one month's arrest and twenty demerits. In case a cadet is prevented by sickness from returning at the stipulated time, he must submit a certificate from his attending physician. However, no such certificate will be accepted unless the President or the Commandant has been notified in advance of the expiration of the furlough.

Cadets returning late on furlough are placed in room arrest pending an investigation of the reason of the late return.

All communications from parents requesting furloughs for their sons must be addressed or sent directly to "The Commandant," and must set forth fully the reason for the request. No furlough will be granted unless the reasons given are considered satisfactory and sufficient justification for any loss of time from college duties; every student is held responsible for his class absences in accordance with the provisions of the class attendance regulations. Telegrams which do not explain fully will not be

accepted as complying with the rules. In any case in which business is given as a reason, the nature of the business must be explained fully.

A parent has the right to demand a discharge from college at any time and for any reason, but the college authorities reserve the right to grant or refuse to grant furloughs.

*Week-End Leaves.* Week-end leaves will be granted under conditions prescribed by the President.

*Demerits.* Any regular cadet who may receive within any one semester more than 90 demerits during his freshman year, or more than 70 demerits during his sophomore year, or more than 60 demerits during his junior year, or more than 50 demerits during his senior year; or any day cadet who may receive within any one semester more than 70 demerits during his freshman year, or more than 60 demerits during his sophomore year, or more than 50 demerits during his junior year, or more than 35 demerits during his senior year shall be required, by the President, to withdraw immediately from College.

*Discharge.* No cadet unless twenty-one years of age and paying his own way at college shall be honorably discharged except on the written application of his parents or guardian addressed to the President, or for reasons satisfactory to the President.

### SCHOLASTIC REGULATIONS

1. The semester hour shall be the basis of all credits. One recitation hour or three laboratory or shop hours a week if self-contained, or two if considerable work is required out of the class period, shall constitute a semester hour.

2. The standing of a student in his work at the end of a semester shall be based on daily class work, regularity of attendance, tests or other work, and the final examinations.



3. Written examinations shall be required in all subjects at the end of each semester, except in certain laboratory or practical courses where not deemed necessary by the department faculty. A student who has been absent from more than one-fourth of the total number of class periods in any subject for a semester is debarred from the final examination.

4. A semester grade once reported to the Registrar shall be the final grade for the period covered.

5. No semester grade shall be given out or posted until the last day of the examination period. Grades will then be posted by instructors as promptly as possible.

6. When an instructor completes a subject he may hold an examination on it before beginning the next subject, provided such examination does not conflict with the regularly scheduled work.

7. *Reports and Grades*—Semester reports are mailed to parents after the end of each semester (usually within two or three weeks). Mid-semester reports do not form a part of the permanent record in the Registrar's office, but are sent to parents for their information.

The grading system shall be as follows:

*A—Excellent.* Indicates that the student is doing work of a very high character. The highest grade given.

*B—Good.* Indicates work that is satisfactory, though not of the highest order.

*C—Fair.* Indicates work of average or medium character.

*D—Pass.* Indicates work below the average and unsatisfactory. The lowest passing grade. For promotion to the junior and senior classes a student must have a grade above D on 50

per cent of his total credit hours. For graduation this average is also required.

*E—Conditioned.* Indicates a failure to satisfy the requirements as to daily recitations, tests or other work, as well as to the final examination, which condition in the opinion of the instructor may be made up by reexamination at some fixed time.

*F—Failed.* Indicates that a student knows so little of the subject that it must be repeated in order that credit may be received.

*I—Incomplete Work.* Indicates that a relatively small part of the semester's work remains undone. A grade *I* is not to be given a student who has made a grade *F* on his daily work.

*“I-Abs. Ex.”* Indicates absence from examination on account of sickness or other satisfactory reason.

#### 8. *Absences from Class. Removal of Grade I.*

Instructors keep a daily record of class attendance.

Students should not request instructors to excuse them from classes or to change class periods or examinations. Instructors have no authority to grant such requests.

A student who has been absent from class for more than three weeks will be dropped from the roll, and his grade card will be returned by his instructor to the Registrar's office. Such a student will be readmitted only by permission from the Registrar.

All class work missed on account of absences for good and sufficient reasons shall be made up to the satisfaction of the instructor within thirty days after the student returns to classes.

All incomplete grades (*I*'s) for first semester not removed within thirty days after the beginning of the second semester shall become *F*'s. All incomplete grades (*I*'s) for second semes-

ter not removed within thirty days after the beginning of the first semester shall become failures (*F*'s) and must be taken over as such.

A student who, for reasons satisfactory to the faculty, is absent from any of the first semester examinations will be graded *I-Abs. Exam.* and will be allowed to make up these examinations during the second semester at the period scheduled for this work. A student who is absent for satisfactory reasons from any of the second semester examinations shall stand them during the make-up period in September. A student who is absent from an examination without excuse is graded *F*.

9. *Special Examinations.* Any request for a special examination must be approved by (1) the instructor concerned, (2) the head of the department concerned, (3) the dean of the school, and (4) the registrar. When the request is approved by all those concerned, a special examination will be given on payment of a \$2.00 fee.

10. *Removal of Conditions.* Only one opportunity shall be given a student to remove a condition (*E*) by a reexamination. A student who fails to pass such a reexamination shall be required to repeat the subject hour for hour in class. Not more than twelve credit hours of conditions for a session shall be removed by reexamination. A student shall not receive a grade higher than *D* when a deficiency is removed by reexamination.

Reexaminations shall be held as scheduled by the schedule committee. All conditions (*E*'s) not removed during the time set aside for reexaminations shall become failures. Seniors may remove conditions during the week preceding Commencement.

11. *Removal of Failures.* A student who has failed (made a grade *F*) in a subject cannot receive credit for that subject until it has been repeated hour for hour in class, except that in the case of correlated laboratory work, the number of hours to be taken shall be determined by the instructor. Where separate

grades for class and laboratory work are given, that part of the subject shall be repeated in which the failure occurs.

12. *Withdrawals on Account of Unsatisfactory Work.* A student who at the end of the first semester does not make a grade of *D* or above on at least nine credit hours may be required to withdraw from college. A student who at the end of the session does not make a grade of *D* or above on at least eighteen credit hours shall not be permitted to return the following session.

13. *Promotion and Classification.* Promotion is by subjects, but a student is classified according to the amount of college work completed. The term freshmen is used to apply to new students with the exception of those who have completed as much as a full year of college work elsewhere. Old students who have not passed as much as twenty-four semester credit hours are also designated as freshmen. To be a sophomore a student must have to his credit at least twenty-four semester hours, and to be a junior a student must have completed a total number of semester hours within fourteen credits of the requirements of the first two years of his course, and must have a grade of *C* or above on at least one-half of his credits. A student must have completed a total number of semester hours within forty-seven credits of the requirements for graduation in his course, and must have a grade of *C* or above on at least one-half of his credits, before he may be enrolled as a senior or hold any office or appointment reserved by the faculty for seniors. Every student is responsible for knowing the requirements of his course and his status in regard to meeting these requirements.

14. *Amount of Class Work Permitted and Required. Prerequisites.* The normal amount of work a student is expected to schedule shall be the number of credit hours listed in the curriculum which he is pursuing, plus a proportionate number of electives as explained under "Requirements for Degree."



Students who do not pass thirteen or more credit hours in any semester shall not be permitted to take more than eighteen credit hours in the following semester.

A student shall not be permitted to schedule extra subjects or take over in addition to his normal schedule any work unless he has made during the preceding semester a grade of *B*, or above, on at least 50 per cent of the total scheduled credit hours. Not more than five clock hours of work may be scheduled in addition to the number of credit hours prescribed in the curriculum.

A continuation subject in the next higher class shall not be scheduled until credit has been received for its prerequisites.

15. *Dropping Class Work.* Upon the recommendation of the instructor and the director concerned to the President, a student's standing will be investigated and he may be required to drop a subject because of neglect, or lack of application or preparation. No student will be dropped under this rule without approval by the President.

A subject dropped after the middle of the semester is recorded as a subject failed unless the student shall have a daily average of *C* or above in that subject; in which case it will be recorded as "subject dropped."

16. *Time of Scheduling Work.* All students shall register for classes during the class registration period. A fee of two dollars is charged for registering late for class work.

17. *Deficiencies in Year Courses.* A student who receives a grade *F* on a first-semester subject that is prerequisite for a second-semester subject shall not schedule such second-semester subject without permission of the reexamination and promotion committee and the dean of the school concerned.

18. *How to raise a Grade E.* A grade *E* may be removed as prescribed in Section 11. However, if a student makes a grade *E* in a subject which continues beyond the first semester

and to the end of the second semester, the instructor may at the end of the session recommend that the grade be raised to a *D*, provided the grade made on the work of the second semester is *A* or *B*. In such a case the recommendation of the instructor shall be made a special report, must be approved by the dean of the school, and must accompany the grades of the second semester.

19. *Promotion to the Junior and Senior Classes.* A student shall not be permitted to enroll in the senior class until all the work of the freshman and sophomore classes has been completed. A student shall not be admitted to the junior or senior classes who has not received grades above *D* on 50 per cent of his credit hours (See also Rule 13 above).

20. *Requirements for Graduation.* For graduation a student must have completed as many credit hours as are required in his course with a grade above *D* on 50 per cent of the total credit hours. All work must be completed before 5 P. M. on the Wednesday preceding Commencement.

Residence of at least one regular session shall be required for graduation.

21. *Seniors Failing to Graduate.* A senior who fails to graduate because of either one *E* or one *F* on any subject shall have an opportunity of removing it by examination during the make-up period in September provided he can furnish evidence of having done satisfactory study. Failing to do this he shall repeat the subject.

22. *Change in Course.* Aimless shifting is discouraged, but for good reasons a change in course may be made at the end of any semester. The student must meet the full requirements of the course to which he changes.

23. *Textbooks and Supplies.* Each student shall be required to own his individual textbooks and the necessary equipment.

All requests from the students to the faculty must be made in writing.

## PART V—DEGREES AND CURRICULA

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### REQUIREMENTS FOR DEGREES

The degree of Bachelor of Science is awarded to those students who satisfactorily complete one of the four-year curricula offered under the Schools of Agriculture, Chemistry, General Science, Textiles, Vocational Education, and to those students who complete either the course in Architecture or the course in Chemistry-Engineering under the School of Engineering. The degrees of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, and Bachelor of Mechanical Engineering are awarded to the graduates of these respective courses.

In addition to the courses prescribed in the various curricula, at least fourteen hours of *free electives* are allowed. Other electives are subject to the approval of the dean of the school in which the major course is taken. For rules governing scholastic work, see the scholastic regulations.

All work for a degree must be completed by 5 P. M. on the Wednesday preceding graduation exercises. Residence of at least one regular session is required for graduation. Every candidate for a degree must pay to the Treasurer of the College the cost of his diploma before 5 P. M. on the Wednesday preceding graduation.

If all work toward a degree is not completed within five years after entrance, the student may be required to take additional courses.

### PROFESSIONAL DEGREE IN ENGINEERING

The College offers the following professional engineering degrees: Civil Engineer, Electrical Engineer and Mechanical Engineer.

The requirements for these degrees are: (a) a Bachelor's degree from Clemson College in one of these three branches in

engineering, (b) five years of subsequent professional experience, one year of which must have been in responsible charge of engineering or engineering instruction, (c) the preparation of a thesis demonstrating distinct technical ability. (Detailed information regarding professional degrees may be obtained from the Registrar.)

### *COURSES OF STUDY*

Twenty-three undergraduate courses of study are offered in the Schools of Agriculture, Chemistry, Engineering, General Science, Textiles, and Vocational Education. The major courses under each department are indicated below:

#### SCHOOL OF AGRICULTURE

Agricultural Economics and  
Rural Sociology  
Agricultural Engineering  
Agronomy  
Animal Husbandry  
Dairy  
Entomology  
Horticulture

#### SCHOOL OF CHEMISTRY

Chemistry

#### SCHOOL OF GENERAL SCIENCE

General Science  
Pre-Medical

#### SCHOOL OF ENGINEERING

Architecture  
Chemistry—Engineering  
Civil Engineering  
Electrical Engineering  
Mechanical Engineering

#### SCHOOL OF TEXTILES

Textile Chemistry and  
Dyeing  
Textile Engineering  
Weaving and Designing

#### SCHOOL OF VOCATIONAL EDUCATION

Agricultural Education  
Education  
Industrial Education  
Textile Industrial Education

In addition to the work in these regular courses, the college offers the opportunity for certain work after graduation to properly qualified students from this and other institutions. This work may be of an advanced nature or may be a special program of undergraduate studies. Students interested in work along this line should consult the Registrar or the Head of the Department concerned. Graduate Work is offered in the Sum-



mer in Vocational Education. For information, write the Registrar or the Dean of the School of Vocational Education.

While the college is glad to assist all who ask for help in securing employment, it does not guarantee positions to those who complete any of the courses of study.

In the curricula which follow are given the official title and number of the course, the descriptive title, the number of semester hours credit, and in parentheses the number of hours per week in class and laboratory, respectively.

### SCHOOL OF AGRICULTURE

The basic curriculum in agriculture consists of fundamental and comprehensive subject matter in the School of Agriculture supplemented with courses in English, mathematics, and in the natural and social sciences. In addition to the courses required, opportunity is given for a broad selection of courses in the School of Agriculture and other schools of the College, which will prepare students for farming, positions as county agricultural agents, specialists and technicians in many fields of agriculture and allied industries, and other occupations of usefulness in an agricultural community.

The minimum requirements for the degree of Bachelor of Science in Agriculture are as follows:

|                                                |     |             |
|------------------------------------------------|-----|-------------|
| Required courses in other schools.....         | 49  | credits     |
| Required courses in School of Agriculture..... | 50  | 1/3 credits |
| Electives (of which 14 are free electives).... | 40  | 2/3 credits |
| <hr/>                                          |     |             |
| Total minimum credits required.....            | 140 |             |

All students in the School of Agriculture with the exception of those electing agricultural engineering, pursue the same curriculum during the freshman and sophomore years. Certain courses are also required of all agricultural students during the junior and senior years. In the junior and senior years a student must elect a major in agricultural economics, agronomy,

animal husbandry, dairying, entomology, or horticulture. Sufficient courses will be elected to complete the requirements for graduation.

Students of the School of Agriculture are given an opportunity to become familiar with the work of the agricultural experiment station, the extension service, crop pest commission, and fertilizer inspection and analysis. They also have opportunity to work on thesis problems in cooperation with members of the agricultural experiment station staff and in this way gain an insight into the methods employed in scientific research.

## AGRICULTURE

### *Basic Curriculum*

#### *Required of all Agricultural Students*

(Except those in Agricultural Engineering)

### FRESHMAN YEAR

#### *First Semester*

|                              |    |       |
|------------------------------|----|-------|
| *Agr. 11, Field Crops        | 3  | (3,0) |
| Bot. 13, Agricultural        | 2½ | (2,2) |
| Chem. 11, General            | 3½ | (3,2) |
| Drawing 11, Freehand         | ½  | (0,2) |
| English 15, Comp. & Am. Lit. | 3  | (3,0) |
| Math. 17, First Year College |    |       |
| Math.                        | 3  | (3,0) |
| M. S. 11, Military Science   | 1  | (0,3) |
| M. E. 13, Woodwork           | ¾  | (0,2) |

17½

#### *Second Semester*

|                              |    |       |
|------------------------------|----|-------|
| *A. H. 12, Types, Breeds and |    |       |
| Market Classes               | 2¾ | (2,2) |
| Bot. 14, Agricultural        | 3½ | (2,4) |
| Chem. 12, General            | 3¾ | (3,2) |
| Drawing 12, Mechanical       | ¾  | (0,2) |
| English 16, Comp. & Am. Lit. | 3  | (3,0) |
| Math. 18, First Year College |    |       |
| Math.                        | 3  | (3,0) |
| M. S. 12, Military Science   | 1  | (0,3) |

17½

### SOPHOMORE YEAR

|                            |    |       |
|----------------------------|----|-------|
| Chem. 21, Organic          | 3  | (2,3) |
| *Dairy 21, Dairying        | 2¾ | (2,2) |
| English 21, Lit. and Adv.  |    |       |
| Comp.                      | 2  | (2,0) |
| *Geol. 21, Agricultural    | 3  | (3,0) |
| M. S. 21, Military Science | 1  | (0,3) |
| Phys. 29, Physics          | 3¾ | (3,2) |
| Zool. 21, Zoology          | 2¾ | (2,2) |

18

|                            |    |       |
|----------------------------|----|-------|
| *Ag. Ec. 22, Ag. Econ.     | 3  | (3,0) |
| Ag. 20, Soils              | 2¾ | (2,2) |
| *Ag. Engr. 22, Farm Mach.  | 2¾ | (2,2) |
| Chem. 22, Organic          | 3  | (2,3) |
| English 22, Lit. and Adv.  |    |       |
| Comp.                      | 2  | (2,0) |
| *Hort. 22, General         | 3  | (2,3) |
| Phys. 30, Physics          | ¾  | (0,2) |
| M. S. 22, Military Science | 1  | (0,3) |

18

### JUNIOR YEAR

|                             |      |       |
|-----------------------------|------|-------|
| A. H. 31, Feeds and Feeding | 3    | (3,0) |
| Bact. 31, General           | 3½   | (2,4) |
| Ent. 31, Introd. and Appl.  |      |       |
| Ent.                        | 2¾   | (2,2) |
| M. S. 31, Military Science  | 1    | (0,3) |
| Major and Electives         | 8-10 |       |

18-20

|                               |        |       |
|-------------------------------|--------|-------|
| Ag. Ec. 32, Farm Org. and     |        |       |
| Mgt.                          | 2¾     | (2,2) |
| Ag. 32, or Dairy 32, Genetics | 2¾     | (2,2) |
| M. S. 32, Military Science    | ¾      | (0,2) |
| P. H. 32, Farm Poultry        | 2¾     | (2,2) |
| Major and Electives           | 9½-11½ |       |

18-20

\*Offered both semesters.

## SENIOR YEAR

|                                          |       |                                  |       |
|------------------------------------------|-------|----------------------------------|-------|
| †Agr. 31, Fertilizers and Manures -----2 | (2,0) | Ag. Ec. 42, Rural Soc. -----3    | (3,0) |
| Gov. 31, Government -----3               | (3,0) | M. S. 42, Military Science--- ¾  | (0,2) |
| M. S. 41, Military Science---1           | (0,3) | Major and Electives -----12½-16½ |       |
| Major and Electives -----11-14           |       |                                  | 16-20 |
| <hr/>                                    |       | <hr/>                            |       |
| 17-20                                    |       |                                  |       |

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY  
MAJOR

## JUNIOR YEAR

*First Semester*

|                                      |       |
|--------------------------------------|-------|
| Required in Basic Curriculum -----10 |       |
| Ag. Ec. 33, Stat. Methods---3        | (3,0) |
| Electives -----5-7                   |       |
| <hr/>                                |       |
| 18-20                                |       |

|                                   |       |
|-----------------------------------|-------|
| <b>Suggested Electives:</b>       |       |
| Econ. 23, Economics -----2        | (2,0) |
| Econ. 31, Cont. Ec. Problems-3    | (3,0) |
| Eng. 31, Public Speaking-----2    | (2,0) |
| French 11 or German 11-----3      | (3,0) |
| Hist. 31, Hist. of Civilization-3 | (3,0) |
| Agr. 33, Forage Crops -----3      | (3,0) |

*Second Semester*

|                                 |       |
|---------------------------------|-------|
| Required in Basic Curriculum 8¾ |       |
| Ag. Ec. 34, Public Finance---3  | (3,0) |
| Ag. Ec. 36, Coop. in Ag.-----3  | (3,0) |
| Electives -----3½-5½            |       |
| <hr/>                           |       |
| 18-20                           |       |

|                                          |       |
|------------------------------------------|-------|
| <b>Suggested Electives:</b>              |       |
| Econ. 24, Economics -----2               | (2,0) |
| Econ. 31, Cont. Ec. Prob-<br>lems -----3 | (3,0) |
| Eng. 32, Business Law -----2             | (2,0) |
| Hist. 32, Hist. of Civilization-3        | (3,0) |
| French 12 or German 12-----3             | (3,0) |

## SENIOR YEAR

|                                                   |       |
|---------------------------------------------------|-------|
| Required in Basic Curriculum-6                    |       |
| Ag. Ec. 41, Principles of<br>Marketing -----3     | (3,0) |
| Ag. Ec. 43, Farm Finance and<br>Accounting -----3 | (3,0) |
| Ag. Ec. 51, Seminar -----1                        | (1,0) |
| Electives -----4-7                                |       |
| <hr/>                                             |       |
| 17-20                                             |       |

|                                |       |
|--------------------------------|-------|
| <b>Suggested Electives:</b>    |       |
| French 21, or German 21-----3  | (3,0) |
| Agr. 45, Crop Nutrition -----2 | (2,0) |
| Eng. 31, Public Speaking-----2 | (2,0) |
| Agr. 43, Farm Problems-----2   | (2,0) |

|                                          |       |
|------------------------------------------|-------|
| Required in Basic Curriculum-3¾          |       |
| Ag. Ec. 46, Farmer Move-<br>ments -----3 | (3,0) |
| Ag. Ec. 44, Land Economics-3             | (3,0) |
| Ag. Ec. 52, Seminar -----1               | (1,0) |
| Ag. Ec. 40, Econ. Geography-3            | (3,0) |
| Electives -----2½-6½                     |       |
| <hr/>                                    |       |
| 16-20                                    |       |

|                                  |       |
|----------------------------------|-------|
| <b>Suggested Electives:</b>      |       |
| Econ. 24, Economics -----2       | (2,0) |
| Sociol. 31, Sociology -----2     | (2,0) |
| French 22 or German 22-----3     | (3,0) |
| Agr. 42, Soil Fert. and Mgt.---2 | (2,0) |
| Hort. 52, Com. Pomology ---2½    | (2,2) |

## AGRONOMY MAJOR

## JUNIOR YEAR

*First Semester*

|                                 |       |
|---------------------------------|-------|
| Required in Basic Curriculum-10 |       |
| Agr. 31, Fert. and Manures-2    | (2,0) |
| Agr. 33, Forage Crops -----3    | (3,0) |
| English 31, Public Speaking-2   | (2,0) |
| Electives -----1-3              |       |
| <hr/>                           |       |
| 18-20                           |       |

|                                              |       |
|----------------------------------------------|-------|
| <b>Suggested Electives:</b>                  |       |
| Hort. 31, Plant Prop. -----2½                | (2,2) |
| Psychol. 35, Psychol. for<br>Teachers -----3 | (2,2) |

*Second Semester*

|                                 |       |
|---------------------------------|-------|
| Required in Basic Curriculum-8¾ |       |
| Bot. 30, Plant Phys. -----3½    | (2,4) |
| Electives -----6-8              |       |
| <hr/>                           |       |
| 18-20                           |       |

|                                              |       |
|----------------------------------------------|-------|
| <b>Suggested Electives:</b>                  |       |
| Psychol. 36, Psychol. for<br>Teachers -----3 | (2,2) |
| Ag. Engr. 38, Soil Conserva-<br>tion -----2  | (1,3) |

†Agronomy students take Agronomy 31 in the Junior Year and schedule two hours additional elective in the Senior Year.

## SENIOR YEAR

|                              |                                 |       |
|------------------------------|---------------------------------|-------|
| Required in Basic Curriculum | 4                               |       |
| Agr. 53, Cotton              | 2                               | (2,0) |
| Agr. 45, Crop Nutrition      | 2                               | (2,0) |
| Agr. 47, Adv. Crop Lab.      | $\frac{2}{3}$                   | (0,2) |
| Agr. 49, Plant Breeding      | $2\frac{2}{3}$                  | (2,2) |
| Agr. 51, Seminar             | 1                               | (1,0) |
| Agr. 61, Thesis              | 1                               | (0,3) |
| Electives                    | $3\frac{2}{3}$ - $6\frac{2}{3}$ |       |

17-20

## Suggested Electives:

|                              |                |       |
|------------------------------|----------------|-------|
| Bot. 41, Field Crop Diseases | $2\frac{2}{3}$ | (2,2) |
| Geol. 33, Mineralogy         | $2\frac{2}{3}$ | (2,2) |

|                              |                                 |       |
|------------------------------|---------------------------------|-------|
| Required in Basic Curriculum | $3\frac{2}{3}$                  |       |
| Agr. 42, Soil Fert. and Mgt. | 2                               | (2,0) |
| Agr. 44, Adv. Soil Lab.      | $\frac{2}{3}$                   | (0,2) |
| Agr. 52, Seminar             | 1                               | (1,0) |
| Agr. 62, Thesis              | 1                               | (0,3) |
| Bact. 44, Soil Microbiology  | 3                               | (2,3) |
| Electives                    | $4\frac{2}{3}$ - $8\frac{2}{3}$ |       |

16-20

## Suggested Electives:

|                             |               |       |
|-----------------------------|---------------|-------|
| Y. M. 28, Cotton Grading    | $\frac{2}{3}$ | (0,2) |
| Ag. Ec. 40, Econ. Geography | 3             | (3,0) |
| Ag. Ec. 44, Land Economics  | 3             | (3,0) |

## ANIMAL HUSBANDRY MAJOR

## JUNIOR YEAR

## First Semester

|                              |                                 |       |
|------------------------------|---------------------------------|-------|
| Required in Basic Curriculum | 10                              |       |
| A. H. 33, Judging            | $\frac{2}{3}$                   | (0,2) |
| A. H. 35, Farm Meats         | 2                               | (0,6) |
| Electives                    | $5\frac{1}{3}$ - $7\frac{1}{3}$ |       |

18-20

## Suggested Electives:

|                             |   |       |
|-----------------------------|---|-------|
| English 31, Pub. Speaking   | 2 | (2,0) |
| Ag. Engr. 35, Motors & Pwr. |   |       |
| Machinery                   | 3 | (2,3) |
| Psychol. 35, Psychology     | 3 | (2,2) |
| Ag. Ec. 33, Statistical     |   |       |
| Methods                     | 3 | (3,0) |
| Dairy 31, Judging           | 1 | (0,3) |
| Agr. 33, Forage Crops       | 3 | (3,0) |

## Second Semester

|                              |                                 |       |
|------------------------------|---------------------------------|-------|
| Required in Basic Curriculum | $8\frac{2}{3}$                  |       |
| A. H. 34, Pork Production    | $2\frac{2}{3}$                  | (2,2) |
| Electives                    | $6\frac{2}{3}$ - $8\frac{2}{3}$ |       |

18-20

## Suggested Electives:

|                            |                |       |
|----------------------------|----------------|-------|
| Hort. 32, Prin. Veg. Prod. | $2\frac{2}{3}$ | (2,2) |
|----------------------------|----------------|-------|

## SENIOR YEAR

|                              |                                 |       |
|------------------------------|---------------------------------|-------|
| Required in Basic Curriculum | 6                               |       |
| A. H. 41, Advanced Feeds     |                                 |       |
| and Feeding                  | 2                               | (2,0) |
| A. H. 43, Beef Production    | $2\frac{2}{3}$                  | (2,2) |
| Vet. 41, Anatomy and Phys.   | $2\frac{2}{3}$                  | (2,2) |
| Electives                    | $3\frac{2}{3}$ - $6\frac{2}{3}$ |       |

17-20

## Suggested Electives:

|                          |                |       |
|--------------------------|----------------|-------|
| P. H. 41, Judging and    |                |       |
| Breeding                 | $2\frac{2}{3}$ | (2,2) |
| Eng. 31, Public Speaking | 2              | (2,0) |
| Ag. Ec. 43, Farm Finance | 3              | (3,0) |

|                              |                |       |
|------------------------------|----------------|-------|
| Required in Basic Curriculum | $3\frac{2}{3}$ |       |
| A. H. 40, Animal Breeding    | $2\frac{2}{3}$ | (2,2) |
| A. H. 42, Horse and Sheep    |                |       |
| Production                   | $2\frac{2}{3}$ | (2,2) |
| A. H. 52, Seminar            | 2              | (2,0) |
| Electives                    | 5-9            |       |

16-20

## Suggested Electives:

|                              |                |       |
|------------------------------|----------------|-------|
| Vet. 42, Diseases            | $2\frac{2}{3}$ | (2,2) |
| P. H. 42, Adv. Poultry       | $2\frac{2}{3}$ | (2,2) |
| Dairy 48, Nutrition          | 2              | (2,0) |
| Hort. 54, Truck Crops        | $2\frac{2}{3}$ | (2,2) |
| Eng. 49, Ag. Journalism      | 2              | (2,0) |
| Agr. 42, Soil Fert. and Mgt. | 2              | (2,0) |
| Ag. Engr. 38, Soil Conserva- |                |       |
| tion                         | 2              | (1,3) |



## DAIRY MAJOR

## JUNIOR YEAR

*First Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 10    |       |
| Dairy 35, Feeding and Mgt.   | 2½    | (2,2) |
| Dairy 31, Judging            | 1     | (0,3) |
| Electives                    | 4½-6½ |       |
|                              | 18-20 |       |

## Suggested Electives:

|                             |   |       |
|-----------------------------|---|-------|
| Eng. 31, Public Speaking    | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods   | 3 | (3,0) |
| Psychol. 35, Psychology     | 3 | (2,2) |
| Ag. Engr. 35, Motors & Pwr. |   |       |
| Machinery                   | 3 | (2,3) |
| Agr. 33, Forage Crops       | 3 | (3,0) |

*Second Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 8½    |       |
| Chem. 34, Dairy Chemistry    | 3     | (2,3) |
| Dairy 34, Dairy Plant Org.   |       |       |
| and Management               | 3     | (3,0) |
| Electives                    | 3½-5½ |       |
|                              | 18-20 |       |

## Suggested Electives:

|                           |    |       |
|---------------------------|----|-------|
| Eng. 32, Business Law     | 2  | (2,0) |
| A. H. 34, Pork Production | 2½ | (2,2) |

## SENIOR YEAR

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 6     |       |
| Dairy 41, Dairy Manufac-     |       |       |
| tures                        | 3     | (2,3) |
| Dairy 43, Breeding           | 1½    | (1,2) |
| Dairy 51, Seminar            | 1     | (1,0) |
| Vet. 41, Anatomy and Physi-  |       |       |
| ology                        | 2½    | (2,2) |
| Electives                    | 2½-5½ |       |
|                              | 17-20 |       |

## Suggested Electives:

|                           |    |       |
|---------------------------|----|-------|
| Ag. Ec. 43, Farm Finance  | 3  | (3,0) |
| P. H. 41, Poultry Judging |    |       |
| and Breeding              | 2½ | (2,2) |
| Eng. 31, Public Speaking  | 2  | (2,0) |
| Agr. 43, Farm Problems    | 2  | (2,0) |

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 3½    |       |
| Bact. 40, Dairy Bact.        | 3     | (2,3) |
| Dairy 42, Dairy Manu-        |       |       |
| factures                     | 3½    | (2,4) |
| Dairy 48, Nutrition          | 2     | (2,0) |
| Dairy 52, Seminar            | 1     | (1,0) |
| Electives                    | 3-7   |       |
|                              | 16-20 |       |

## Suggested Electives:

|                              |    |       |
|------------------------------|----|-------|
| Eng. 49, Agr. Journalism     | 2  | (2,0) |
| Vet. 42, Diseases            | 2½ | (2,2) |
| P. H. 42, Poultry            | 2½ | (2,2) |
| Agr. 42, Soil Fert. Mgt.     | 2  | (2,0) |
| Hort. 54, Truck Crops        | 2½ | (2,2) |
| Ag. Engr. 38, Soil Conserva- |    |       |
| tion                         | 2  | (1,3) |

## ENTOMOLOGY MAJOR

## JUNIOR YEAR

*First Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 10    |       |
| Zool. 33, Adv. Zoology       | 2½    | (2,2) |
| Electives                    | 5½-7½ |       |
|                              | 18-20 |       |

## Suggested Electives:

|                          |   |       |
|--------------------------|---|-------|
| German 11, German        | 3 | (3,0) |
| Eng. 31, Public Speaking | 2 | (2,0) |
| Hist. 31, Hist. of Civ.  | 3 | (3,0) |

*Second Semester*

|                              |       |       |
|------------------------------|-------|-------|
| Required in Basic Curriculum | 8½    |       |
| Ent. 32, Gen. Entomology     | 3½    | (2,4) |
| Electives                    | 6-8   |       |
|                              | 18-20 |       |

## Suggested Electives:

|                          |    |       |
|--------------------------|----|-------|
| Zool. 48, Intro. to Game |    |       |
| Mgt.                     | 2  | (2,0) |
| German 12, German        | 3  | (3,0) |
| Bot. 30, Plant Phys.     | 3½ | (2,4) |
| Eng. 32, Bus. Law        | 2  | (2,0) |

## SENIOR YEAR

## Required in Basic Curriculum-6

|                                   |      |       |
|-----------------------------------|------|-------|
| Ent. 41, Ec. Entomology-----      | 2½   | (2,2) |
| Ent. 45, Ins. Morphology-----     | 2½   | (2,2) |
| Bot. 43, O. & T. Diseases-----    | 2½   | (2,2) |
| Ent. 51, Seminar-----             | 1    | (1,0) |
| Ent. 59, Introd. to Research----- | 1½   | (1,2) |
| Electives-----                    | ½-3½ |       |

17-20

## Suggested Electives:

|                                            |   |       |
|--------------------------------------------|---|-------|
| Ent. 47, Parasitology-----                 | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods-----             | 3 | (3,0) |
| Psych. 35, Psychology for<br>Teachers----- | 3 | (2,2) |

## Required in Basic Curriculum-3½

|                               |       |       |
|-------------------------------|-------|-------|
| Ent. 42, Econ. Ent.-----      | 2½    | (2,2) |
| Ent. 44, Beekeeping-----      | 2½    | (2,2) |
| Ent. 46, Systematic Ent.----- | 2½    | (1,4) |
| Ent. 52, Seminar-----         | 1     | (1,0) |
| Electives-----                | 3½-7½ |       |

16-20

## Suggested Electives:

|                                              |   |       |
|----------------------------------------------|---|-------|
| Geol. 42, Meteorology-----                   | 2 | (2,0) |
| Eng. 49, Agri. Journalism-----               | 2 | (2,0) |
| Psychol. 36, Psychology for<br>Teachers----- | 3 | (2,2) |
| Soc. 31, Sociology-----                      | 2 | (2,0) |

## HORTICULTURE MAJOR

## JUNIOR YEAR

## First Semester

## Required in Basic Curriculum-10

|                                           |       |       |
|-------------------------------------------|-------|-------|
| Hort. 33, Prin. Veg. Pro-<br>duction----- | 2½    | (2,2) |
| Hort. 31, Plant Propagation-----          | 2½    | (2,2) |
| Electives-----                            | 2½-4½ |       |

18-20

## Suggested Electives:

|                                      |   |       |
|--------------------------------------|---|-------|
| Hist. 31, Hist. of Civilization----- | 3 | (3,0) |
| Eng. 31, Public Speaking-----        | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods-----       | 3 | (3,0) |

## Second Semester

## Required in Basic Curriculum-8½

|                                  |       |       |
|----------------------------------|-------|-------|
| Botany 30, Plant Phys.-----      | 3½    | (2,4) |
| Hort. 32, Landsc. Gardening----- | 2½    | (2,2) |
| Electives-----                   | 3½-5½ |       |

18-20

## Suggested Electives:

|                                      |   |       |
|--------------------------------------|---|-------|
| Ag. Ec. 34, Public Finance-----      | 3 | (3,0) |
| Eng. 32, Business Law-----           | 2 | (2,0) |
| Hist. 32, Hist. of Civilization----- | 3 | (3,0) |

## SENIOR YEAR

## Required in Basic Curriculum-6

|                                                                       |     |       |
|-----------------------------------------------------------------------|-----|-------|
| Bot. 43, O. and T. Crop<br>Diseases-----                              | 2½  | (2,2) |
| Hort. 43, Breeding of Hort.<br>Crops or Hort. 47, Nut<br>Culture----- | 2½  | (2,2) |
| Hort. 41, Syst. Pomology-----                                         | 2½  | (2,2) |
| Hort. 61, Seminar-----                                                | 1   | (1,0) |
| Electives-----                                                        | 2-5 |       |

17-20

## Suggested Electives:

|                                 |   |       |
|---------------------------------|---|-------|
| Hort. 45, Land. Design-----     | 2 | (1,3) |
| Ag. Ec. 41, Prin. of Mktg.----- | 3 | (3,0) |

## Required in Basic Curriculum-3½

|                              |      |       |
|------------------------------|------|-------|
| Hort. 52, Com. Pomology----- | 2½   | (2,2) |
| Hort. 54, Truck Crops-----   | 2½   | (2,2) |
| Hort. 62, Seminar-----       | 1    | (1,0) |
| Electives-----               | 3-10 |       |

16-20

## Suggested Electives:

|                                           |    |       |
|-------------------------------------------|----|-------|
| Hort. 46, Floriculture-----               | 2½ | (2,2) |
| Hort. 56, Land. Design-----               | 2  | (1,3) |
| Ag. Ec. 40, Economic Geog.-----           | 3  | (3,0) |
| Geol. 42, Meteorology-----                | 2  | (2,0) |
| Agr. 42, Soil Fert. and Mgt.-----         | 2  | (2,0) |
| Ent. 42, Ec. Entomology-----              | 2½ | (2,2) |
| Ag. Engr. 38, Soil Conserva-<br>tion----- | 2  | (1,3) |

## AGRICULTURAL ENGINEERING

This course is provided for the training of students in the principles of engineering as applied to agriculture. Due to the rapidly increasing demand for the services and advice of men trained in both agricultural and engineering technique, this

course fills a necessary place in adequately preparing men to meet these demands.

The curriculum is formulated requiring sufficient courses in the liberal arts, the foundation subjects of engineering and agriculture, and the specific agricultural engineering subjects, such as Farm Mechanics, Surveying and Drainage, Motors and Power Machinery, etc., all of which will equip the engineer for any phase of this profession.

## AGRICULTURAL ENGINEERING

### FRESHMAN YEAR

#### First Semester

|                            |     |       |
|----------------------------|-----|-------|
| Bot. 13, Agricultural      | 2½  | (2,2) |
| Chem. 11, General          | 3½  | (3,2) |
| Drawing 13, Engr. Drawing  | 1½  | (0,4) |
| Eng. 15, Comp. & Am. Lit.  | 3   | (3,0) |
| Math. 11, Trigonometry     | 5   | (5,0) |
| M. E. 17 or M. E. 12       | 2   | (0,6) |
| M. S. 11, Military Science | 1   | (0,3) |
|                            | 18½ |       |

#### Second Semester

|                            |     |       |
|----------------------------|-----|-------|
| Bot. 14, Agricultural      | 3½  | (2,4) |
| Chem. 12, General          | 3½  | (3,2) |
| Drawing 14, Engr. Drawing  | 1½  | (0,4) |
| Eng. 16, Comp. & Am. Lit.  | 3   | (3,0) |
| Math. 12, Analytics        | 5   | (5,0) |
| M. E. 12 or M. E. 17       | 2   | (0,6) |
| M. S. 12, Military Science | 1   | (0,3) |
|                            | 19½ |       |

### SOPHOMORE YEAR

|                                              |     |       |
|----------------------------------------------|-----|-------|
| *A. H. 12, Types, Breeds, and Market Classes | 2½  | (2,2) |
| Ag. Engr. 23, Agr. Mechanics                 | 3   | (2,3) |
| Drawing 25, Mechanical                       | ¾   | (0,2) |
| Eng. 21, Lit. & Adv. Comp.                   | 2   | (2,0) |
| Physics 21, 23, General                      | 5   | (4,3) |
| Math. 21, Dif. Calculus                      | 5   | (5,0) |
| M. S. 21, Military Science                   | 1   | (0,3) |
|                                              | 19½ |       |

|                               |     |       |
|-------------------------------|-----|-------|
| Ag. Engr. 22, Farm Mach.      | 2½  | (2,2) |
| Drawing 26, Elem. Des. & Kin. | ¾   | (0,2) |
| Eng. 22, Lit. & Adv. Comp.    | 2   | (2,0) |
| Physics 22, 24, General       | 5   | (4,3) |
| Math. 22, Int. Calculus       | 5   | (5,0) |
| M. S. 22, Military Science    | 1   | (0,3) |
|                               | 16½ |       |

### JUNIOR YEAR

|                                   |       |       |
|-----------------------------------|-------|-------|
| Ag. Engr. 35, Motors & Pwr. Mach. | 3     | (2,3) |
| C. E. 31, Mechanics               | 3     | (3,0) |
| Dairy 21, Introduc.               | 2½    | (2,2) |
| E. E. 35, Elec. Mach.             | 2     | (2,0) |
| E. E. 35a, Elec. Lab.             | ¾     | (0,2) |
| Geol. 43, Engr. Geology           | 2     | (2,0) |
| M. S. 31, Military Science        | 1     | (0,3) |
| Electives                         | 3½-5½ |       |
|                                   | 18-20 |       |

|                                         |       |       |
|-----------------------------------------|-------|-------|
| Ag. Ec. 32, Farm Mgt.                   | 2½    | (2,2) |
| Agr. 11, Field Crops                    | 3     | (3,0) |
| C. E. 23, Surveying                     | 1     | (1,0) |
| C. E. 23a, Survey Field and Office Work | ¾     | (0,2) |
| C. E. 32, Strength of Materials         | 3     | (3,0) |
| Hort. 22, General                       | 3     | (2,3) |
| M. S. 32, Military Science              | ¾     | (0,2) |
| Electives                               | 4-6   |       |
|                                         | 18-20 |       |

|                                    |   |       |
|------------------------------------|---|-------|
| <b>Suggested Electives:</b>        |   |       |
| A. H. 31, Feeds & Feeding          | 3 | (3,0) |
| Econ. 23, Elem. Economics          | 2 | (2,0) |
| Gov. 31, Am. Gov. and Pol. Parties | 3 | (3,0) |

|                             |    |       |
|-----------------------------|----|-------|
| <b>Suggested Electives:</b> |    |       |
| Agr. 32 or Dairy 32         | 2½ | (2,2) |
| Econ. 24, Elem. Econ.       | 2  | (2,0) |

\*Offered both semesters.

If a student in Electrical or Mechanical Engineering does outstanding work in his freshman year, he may arrange with the dean of the School of Engineering to take both Electrical and Mechanical Engineering. This is particularly true of the non-R. O. T. C. student. These two courses may be taken in five years, allowing considerable elective work to be taken in General Science, Textile, and possibly some courses in Civil Engineering.

A student in Mechanical Engineering or Electrical Engineering if non-R. O. T. C. is permitted to elect considerable work in the Textile School if he plans his junior and senior years in advance. The R. O. T. C. student may arrange for a half year or one year additional, in which case he may take considerable Textile work provided he decides this by the beginning of the junior year.

### ARCHITECTURE

The information given below applies to the four-year course in Architecture as now given. In order to meet the modern trend the College is offering a five-year course in Architecture leading to the degree of Bachelor in Architecture. In this course the technical work of the lower classes is extended and elaborated, the fifth year design comprising a thesis in which the student selects his subject and writes the program to meet the approval of the faculty of Architecture. Work in Domestic Architecture, Specification Writing, Estimating, Chemistry, Surveying, Advanced History, and allied subjects are included. A copy of the curriculum may be secured upon request.

The course is a well-rounded cultural one, fitting the graduate not only for the practice of architecture, but for a number of allied professions. All work is individual and every effort is made to develop the student's individuality, imagination, and creative ability. Skillful draftsmanship and artistic presentation are insisted upon.



Architecture is one of the fine arts and much time is given to freehand drawing, color work, history of architecture, painting, and sculpture. Architectural design, the principal subject, extends through four years. In this the student is given a written program of requirements for a building or group of buildings and under the criticism of the instructor works out a solution embodying his own ideas. Freehand drawing consists of sketching and rendering from casts, nature and life, in pencil, charcoal, pen and ink, crayons, water color and oils. This extends through four years. History of architecture, historic ornament, and history of art are taught in the sophomore, junior and senior years.

Fundamental courses are given in mathematics, graphic statics, strength of materials, reinforced concrete, building construction, and in working drawings which consist of complete plans and specifications for a building prepared as in the office of a practising architect.

The work in architecture occupies especially designed quarters on the top floor of Riggs Hall. One feature is a large drafting room equipped with individual drafting tables. This is a marked advantage since all may study their problems in design and have the benefit of mutual help and criticism. Adjoining this room and equipped with controlled lighting, is a studio containing plaster casts and models suitable for the needs in freehand drawing and color work. Class rooms are equipped with lanterns and slides.

A working library adjoining the drafting rooms contains many volumes concerning architecture and allied subjects, photographs, plans and illustrations, lantern slides, drawings, models, and files of the leading architectural magazines, both American and foreign. This is in addition to the main college library. In the structural drafting room is a complete built-in exhibit of building materials and appliances especially arranged for instructional purposes.

Each spring students are expected to take an educational trip to a large city to study examples of architecture and construction.

Six weeks of practical architectural work approved by the architectural faculty are required for graduation (Arch. 28).

## ARCHITECTURE

### FRESHMAN YEAR

#### First Semester

|                                |    |       |
|--------------------------------|----|-------|
| Arch. 11, Elems. of Arch.      | 1½ | (0,5) |
| Arch. 13, Freehand Drawing     | 1½ | (0,4) |
| Arch. 15, Descrip. Geom.       | ¾  | (0,2) |
| English 15, Comp. and Am. Lit. | 3  | (3,0) |
| *French 11                     | 3  | (3,0) |
| *Chem. 11, Gen. Chem.          | 3¾ | (3,2) |
| Math. 11, Trigonometry         | 5  | (5,0) |
| Physics 11, General            | 3¾ | (3,2) |
| M. S. 11, Military Science     | 1  | (0,3) |

19¼ or 20

#### Second Semester

|                                       |    |       |
|---------------------------------------|----|-------|
| Arch. 12, Arch. Design                | 1¾ | (0,5) |
| Arch. 14, Freehand Drawing            | 1½ | (0,4) |
| Arch. 16, Sh. Shad. & Persp.          | ¾  | (0,2) |
| English 16, Comp. and Am. Lit.        | 3  | (3,0) |
| *French 12                            | 3  | (3,0) |
| *Chem. 12, Gen. Chem.                 | 3¾ | (3,2) |
| Math. 12, Analytics & College Algebra | 5  | (5,0) |
| Physics 12, General                   | 3¾ | (3,2) |
| M. S. 12, Military Science            | 1  | (0,3) |

19¼ or 20

### SOPHOMORE YEAR

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 21, Arch. Design          | 4¾ | (0,14) |
| Arch. 23, Antique and Color     | 1  | (0,3)  |
| Arch. 25, Hist. of Arch.        | 4  | (4,0)  |
| *French 21                      | 3  | (3,0)  |
| *Hist. 31, Hist. of Civ.        | 3  | (3,0)  |
| English 21, Lit. and Adv. Comp. | 2  | (2,0)  |
| Math. 23, Dif. Calculus         | 3  | (3,0)  |
| M. S. 21, Military Science      | 1  | (0,3)  |

18¾

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 22, Arch. Design          | 4¾ | (0,14) |
| Arch. 24, Antique and Color     | 1  | (0,3)  |
| Arch. 26, Hist. of Arch.        | 4  | (4,0)  |
| *French 22                      | 3  | (3,0)  |
| *Hist. 32, Hist. of Civ.        | 3  | (3,0)  |
| English 22, Lit. and Adv. Comp. | 2  | (2,0)  |
| Math. 24, Int. Calculus         | 3  | (3,0)  |
| M. S. 22, Military Science      | 1  | (0,3)  |

18¾

### JUNIOR YEAR

|                              |    |        |
|------------------------------|----|--------|
| Arch. 31, Arch. Design       | 7½ | (0,22) |
| Arch. 33, Sketching & Paint. | 1  | (0,3)  |
| Arch. 35, Bldg. Constr.      | 3  | (3,0)  |
| Arch. 37, Working Drawings   | ¾  | (0,2)  |
| Arch. 39, Hist. Ornament     | ¾  | (0,2)  |
| C. E. 31, Mechanics          | 3  | (3,0)  |
| English 31, Public Speaking  | 2  | (2,0)  |
| M. S. 31, Military Science   | 1  | (0,3)  |
| Elective                     | 2  |        |

20¾

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 32, Arch. Design          | 7½ | (0,22) |
| Arch. 34, Sketching & Paint.    | 1  | (0,3)  |
| Arch. 36, Bldg. Constr.         | 2  | (2,0)  |
| Arch. 38, Working Drawings      | ¾  | (0,2)  |
| C. E. 32, Strength of Materials | 3  | (3,0)  |
| C. E. 34, Graphic Statics       | 1¾ | (1,2)  |
| English 32, Business Law        | 2  | (2,0)  |
| M. S. 32, Military Science      | ¾  | (0,2)  |
| Elective                        | 3  |        |

21¾

### SENIOR YEAR

|                            |    |        |
|----------------------------|----|--------|
| Arch. 41, Arch. Design     | 6¾ | (0,20) |
| Arch. 43, Bldg. Constr.    | 3  | (3,0)  |
| Arch. 45, Struct. Design   | 2  | (0,6)  |
| Arch. 47, Mech. Plant      | 2  | (2,0)  |
| Arch. 49, Life Drawing     | ¾  | (0,2)  |
| C. E. 47, Reinforced Conc. | 2  | (2,0)  |
| Econ. 23, Economics        | 2  | (2,0)  |
| M. S. 41, Military Science | 1  | (0,3)  |
| Elective                   | 2  |        |

21¾

|                            |    |        |
|----------------------------|----|--------|
| Arch. 42, Arch. Design     | 6¾ | (0,20) |
| Arch. 44, Bldg. Constr.    | 3  | (3,0)  |
| Arch. 46, Struct. Design   | 2¾ | (0,8)  |
| Arch. 48, Profess. Prac.   | 1  | (1,0)  |
| Arch. 40, Life Drawing     | ¾  | (0,2)  |
| Arch. 40.5, Hist. of Art   | 2  | (2,0)  |
| Sociol. 31, Sociology      | 2  | (2,0)  |
| M. S. 42, Military Science | ¾  | (0,2)  |
| Elective                   | 3  |        |

21¾

\*French 11, 12, 21, and 22 or Chemistry 11, 12 and History 31, 32.

## CHEMISTRY-ENGINEERING

This course combines a well-rounded course in chemistry with fundamental courses in physics, mechanics, and engineering subjects with a view of training men for work in the chemical industries or industries in which both chemistry and engineering knowledge is necessary. The industries are more and more abandoning rule-of-thumb methods and are using men with a knowledge both of chemistry and engineering to design their plans and supervise the operation of various processes. An engineering knowledge is required in solving the engineering problems which arise in connection with the chemical industry or chemical processes. Economical production as well as the turning out of a good product naturally requires an interest in discovering where losses occur; in developing uses for by-products; and recovering and utilizing waste products.

It is hardly possible in a four-year course to cover well this field both in chemistry and in engineering. The course offered leads to a B.S. degree and is not claimed to be a course in Chemical Engineering, though the graduates are qualified for employment as chemists in manufacturing plants or industrial research, as gas plant chemists, and many other fields; and their training makes it possible for them to obtain a Chemical Engineering degree in a minimum of time.

## CHEMISTRY-ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                                  |    |       |
|----------------------------------|----|-------|
| Chemistry 13, General            | 4  | (3,3) |
| Drawing 13, Engr. Drawing        | 1½ | (0,4) |
| English 15, Comp. and Amer. Lit. | 3  | (3,0) |
| *History 14, Amer. Ec. Hist.     | 2  | (2,0) |
| Math. 11, Trigonometry           | 5  | (5,0) |
| M. E. 17, or M. E. 12            | 2  | (0,6) |
| M. S. 11, Military Science       | 1  | (0,3) |
|                                  |    | 18½   |

*Second Semester*

|                                           |    |       |
|-------------------------------------------|----|-------|
| Chemistry 14, General                     | 4  | (3,3) |
| Drawing 14, Engr. Drawing                 | 1½ | (0,4) |
| English 16, Comp. and Amer. Lit.          | 3  | (3,0) |
| *Gov. 12, Amer. Gov't. and Polit. Parties | 2  | (2,0) |
| Math. 12, Analytics & College Algebra     | 5  | (5,0) |
| M. E. 12, or M. E. 17, Shop               | 2  | (0,6) |
| M. S. 12, Military Science                | 1  | (0,3) |
|                                           |    | 18½   |

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\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                  |                  |       |                                  |                  |       |
|----------------------------------|------------------|-------|----------------------------------|------------------|-------|
| Chem. 23, Qualitative -----      | 4 $\frac{2}{3}$  | (2,8) | Chem. 24, Quantitative -----     | 4 $\frac{2}{3}$  | (2,8) |
| Drawing 25, Mechanical -----     | $\frac{2}{3}$    | (0,2) | Drawing 26, Elem. Des. and       |                  |       |
| English 21, Lit. and Adv         |                  |       | Kin. -----                       | $\frac{2}{3}$    | (0,2) |
| Comp. -----                      | 2                | (2,0) | English 22, Lit. and Adv.        |                  |       |
| Math. 21, Dif. Calculus -----    | 5                | (5,0) | Comp. -----                      | 2                | (2,0) |
| Physics 21 and 23, General ----- | 5                | (4,3) | Math. 22, Int. Calcul. -----     | 5                | (5,0) |
| M. S. 21, Military Science ----- | 1                | (0,3) | Physics 22 and 24, General ----- | 5                | (4,3) |
|                                  |                  |       | M. S. 22, Military Science ----- | 1                | (0,3) |
|                                  | 18 $\frac{1}{2}$ |       |                                  | 18 $\frac{1}{2}$ |       |

## JUNIOR YEAR

|                                   |                  |       |                                  |                  |       |
|-----------------------------------|------------------|-------|----------------------------------|------------------|-------|
| Chem. 25, Organic -----           | 5                | (3,6) | Chem. 26, Organic -----          | 5                | (3,6) |
| Chem. 33, Quantitative -----      | 1 $\frac{1}{2}$  | (0,4) | Drawing 32, Mach. Des. -----     | 1                | (0,3) |
| Drawing 31, Kin. & Mach.          |                  |       | English 32, Bus. Law -----       | 2                | (2,0) |
| Design -----                      | 1                | (0,3) | M. E. 24, Mach. Shop -----       | 1                | (0,3) |
| English 31, Public Speaking ----- | 2                | (2,0) | C. E. 32, Strength of Mat. ----- | 3                | (3,0) |
| M. E. 23, Mach. Shop -----        | 1                | (0,3) | M. E. 36, Thermodynamics -----   | 3                | (3,0) |
| C. E. 31, Mechanics -----         | 3                | (3,0) | M. E. 36a, Mech. Lab. -----      | 1                | (0,3) |
| M. E. 35, Power Plants -----      | 3                | (3,0) | M. S. 32, Military Science ----- | $\frac{2}{3}$    | (0,2) |
| M. S. 31, Military Science -----  | 1                | (0,3) | Elective -----                   | 3                |       |
| Elective -----                    | 2                |       |                                  | 19 $\frac{1}{2}$ |       |
|                                   | 19 $\frac{1}{2}$ |       |                                  |                  |       |

## SENIOR YEAR

|                                  |                  |       |                                  |                  |       |
|----------------------------------|------------------|-------|----------------------------------|------------------|-------|
| Chem. 35, Organic -----          | 2 $\frac{2}{3}$  | (2,2) | Chem. 32, Physical -----         | 4 $\frac{1}{3}$  | (3,4) |
| Chem. 31, Physical -----         | 4 $\frac{1}{3}$  | (3,4) | Chem. 54, Industrial -----       | 2                | (2,0) |
| Chem. 53, Industrial -----       | 2                | (2,0) | Geol. 34, Mineralogy -----       | 2 $\frac{2}{3}$  | (2,2) |
| Econ. 23, Economics -----        | 2                | (2,0) | E. E. 36, Elec. Mach. -----      | 3                | (3,0) |
| Geol. 33, Mineralogy -----       | 2 $\frac{2}{3}$  | (2,2) | E. E. 36a, Elec. Lab. -----      | $\frac{2}{3}$    | (0,2) |
| M. S. 41, Military Science ----- | 1                | (0,3) | M. S. 42, Military Science ----- | $\frac{2}{3}$    | (0,2) |
| Elective -----                   | 5                |       | Elective -----                   | 4                |       |
|                                  | 19 $\frac{2}{3}$ |       |                                  | 17 $\frac{1}{3}$ |       |

## CIVIL ENGINEERING

This course is intended to prepare young men for entrance upon professional practice in civil engineering, and also to meet the needs of those who, having been engaged in engineering work without a course of instruction, desire to equip themselves for successful competition with those who have had such instruction.

In connection with the technical studies, liberal training is given in English, history, economics, pure mathematics, and the physical sciences. The course will also be found to embrace a considerable amount of drawing, shop work, and short courses in electrical engineering and mechanical engineering.

The distinctive work pursued by students in this course includes the field and office work of surveying and leveling; topo-



graphic surveying and drafting; the location and construction of railroads and highways, bridges, and other related structures; investigation of the strength of the materials of construction and the theories involved in their use; masonry construction; foundations on land and under water; a particular study of highway engineering, including a laboratory course covering all the standard tests of highway material, both bituminous and non-bituminous; municipal and sanitary engineering, including the study of bacteriology, water-supply, sewerage and drainage; and a brief study of engineering law relating to contracts and specifications. Actual design, as well as analytic investigation, is given in all cases.

A summer surveying camp of two weeks duration is required between the sophomore and junior years.

## CIVIL ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                                  |    |       |
|----------------------------------|----|-------|
| Chemistry 11, General            | 3½ | (3,2) |
| Drawing 13, Engr. Drawing        | 1½ | (0,4) |
| English 15, Comp. and Amer. Lit. | 3  | (3,0) |
| *History 14, Amer. Ec. Hist.     | 2  | (2,0) |
| Math. 11, Trigonometry           | 5  | (5,0) |
| M. E. 17, or M. E. 12, Shop      | 2  | (0,6) |
| M. S. 11, Military Science       | 1  | (0,3) |
|                                  | 18 |       |

#### *Second Semester*

|                                          |    |       |
|------------------------------------------|----|-------|
| Chemistry 12, General                    | 3½ | (3,2) |
| Drawing 14, Engr. Drawing                | 1½ | (0,4) |
| English 16, Comp. and Amer. Lit.         | 3  | (3,0) |
| *Gov. 12, Amer. Gov't and Polit. Parties | 2  | (2,0) |
| Math. 12, Analytics & College Algebra    | 5  | (5,0) |
| M. E. 12, or M. E. 17, Shop              | 2  | (0,6) |
| M. S. 12, Military Science               | 1  | (0,3) |
|                                          | 18 |       |

\*Modern Language 3 Hr. Option.

### SOPHOMORE YEAR

|                                            |     |       |
|--------------------------------------------|-----|-------|
| C. E. 21, Surveying                        | 2   | (2,0) |
| C. E. 21a, Surveying Field and Office Work | 1   | (0,3) |
| Drawing 25, Mechanical                     | ¾   | (0,2) |
| English 21, Lit. and Adv. Comp.            | 2   | (2,0) |
| Math. 21, Dif. Calculus                    | 5   | (5,0) |
| M. S. 21, Military Science                 | 1   | (0,3) |
| Physics 21, 23, General                    | 5   | (4,3) |
| *Elective                                  | 2   |       |
|                                            | 18¾ |       |

|                                 |     |       |
|---------------------------------|-----|-------|
| and Office Work                 | ¾   | (0,2) |
| C. E. 22, Surveying             | 3   | (3,0) |
| C. E. 22a, Surveying Field      |     |       |
| Drawing 28, Structural          | ¾   | (0,2) |
| English 22, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 22, Int. Calculus         | 5   | (5,0) |
| M. S. 22, Military Science      | 1   | (0,3) |
| Physics 22, 24, General         | 5   | (4,3) |
| *Elective                       | 2   |       |
|                                 | 19¾ |       |

C. E. 30—Summer Surveying Camp. Two weeks, 3 credits.

\*Suggest consultation with head of Department.

## JUNIOR YEAR

|                                 |       |                                 |       |
|---------------------------------|-------|---------------------------------|-------|
| C. E. 31, Mechanics -----3      | (3,0) | C. E. 32, Mech. of Matr.----3   | (3,0) |
| C. E. 35, Route Surveying----3  | (3,0) | C. E. 34, Graphic Statics----1½ | (1,2) |
| C. E. 37, Structural Probs.--1½ | (0,4) | C. E. 36, Roads & Pavements--4  | (3,3) |
| English 31, Pub. Speaking --2   | (2,0) | C. E. 38, Struc. Problems----2  | (0,6) |
| M. E. 33, Mech. Engr. -----3    | (3,0) | E. E. 36, Elec. Mach. -----3    | (3,0) |
| M. E. 33a, Lab. -----½          | (0,2) | E. E. 36a, Elec. Lab. -----½    | (0,2) |
| M. S. 31, Military Science---1  | (0,3) | M. S. 32, Military Science---½  | (0,2) |
| Physics 33, Astronomy -----2    | (2,0) | Elective -----3                 |       |
| Elective -----2                 |       |                                 |       |
| <hr/> 18                        |       | <hr/> 18                        |       |

## SENIOR YEAR

|                                 |       |                                |       |
|---------------------------------|-------|--------------------------------|-------|
| C. E. 41, Struct. Design -----3 | (2,3) | Bact. 42, Sanitary -----3      | (2,3) |
| C. E. 43, Road Mat. and Test..1 | (0,3) | English 32, Bus. Law -----2    | (2,0) |
| C. E. 45, Reinf. Concrete ----3 | (2,3) | C. E. 42, Structural Des. ---4 | (2,6) |
| C. E. 49, Hydraulics -----3     | (3,0) | C. E. 44, Road M. T. Lab.---1  | (0,3) |
| Econ. 23, Economics -----2      | (2,0) | C. E. 46, Mun. and San. -----  |       |
| Geology 43, Engr. Geology---2   | (2,0) | Engr. -----5                   | (5,0) |
| M. E. 42a, Hydro. & Mat. Lab. ¾ | (0,2) | M. S. 42, Military Science---¾ | (0,2) |
| M. S. 41, Military Science---1  | (0,3) | Elective -----3                |       |
| Elective -----2                 |       |                                |       |
| <hr/> 17¾                       |       | <hr/> 18¾                      |       |

## ELECTRICAL ENGINEERING

The field of electrical engineering embraces the generation, transmission, and utilization of electrical energy for domestic and industrial commercial purposes. It also includes illumination, transportation, communication, and the design, manufacture, and sale of electrical machines and devices.

The curriculum for students in electrical engineering contains a selected series of studies which enables the student to enter any division of the field of electrical engineering.

The first two years are devoted largely to sciences and other subjects prerequisite to the general field of engineering. The last two years are more specialized and embrace those technical courses which are pertinent to electrical engineering.

The theoretical courses in science and engineering are paralleled and reinforced by strong laboratory courses through which the student may make his own determinations of the characteristics of engineering materials and machines. The laboratories are well equipped for this work.

The entire course is directed toward the development of initiative and self-reliance, so that the student may enter his chosen field with reasonable hope of usefulness and success.

## ELECTRICAL ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                                  |    |       |
|----------------------------------|----|-------|
| Chemistry 11, General            | 3½ | (3,2) |
| Drawing 13, Engr. Drawing        | 1½ | (0,4) |
| English 15, Comp. and Amer. Lit. | 3  | (3,0) |
| *History 14, Amer. Ec. Hist.     | 2  | (2,0) |
| Math. 11, Trigonometry           | 5  | (5,0) |
| M. E. 17, or M. E. 12, Shop      | 2  | (0,6) |
| M. S. 11, Military Science       | 1  | (0,3) |
|                                  | 18 |       |

*Second Semester*

|                                         |    |       |
|-----------------------------------------|----|-------|
| Chem. 12, General                       | 3½ | (3,2) |
| Drawing 14, Engr. Drawing               | 1½ | (0,4) |
| English 16, Comp. and Amer. Lit.        | 3  | (3,0) |
| Gov. 12, Amer. Gov't and Polit. Parties | 2  | (2,0) |
| Math. 12, Analytics and College Algebra | 5  | (5,0) |
| M. E. 12, or M. E. 17, Shop             | 2  | (0,6) |
| M. S. 12, Military Science              | 1  | (0,3) |
|                                         | 18 |       |

\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                            |     |       |
|--------------------------------------------|-----|-------|
| Drawing 25, Mechanical                     | ¾   | (0,2) |
| C. E. 23, Surveying                        | 1   | (1,0) |
| C. E. 23a, Surveying Field and Office Work | ¾   | (0,2) |
| Econ. 23, Economics                        | 2   | (2,0) |
| English 21, Lit. and Adv. Comp.            | 2   | (2,0) |
| Math. 21, Dif. Calculus                    | 5   | (5,0) |
| M. E. 23, Mach. Shop                       | 1   | (0,3) |
| M. S. 21, Military Science                 | 1   | (0,3) |
| Physics 21 and 23, General                 | 5   | (4,3) |
|                                            | 18½ |       |

|                                 |     |       |
|---------------------------------|-----|-------|
| Drawing 26, Elem. Des. & Kin.   | ¾   | (0,2) |
| E. E. 22, D. C. Circuits        | 2   | (2,0) |
| English 22, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 22, Int. Calculus         | 5   | (5,0) |
| M. E. 24, Mach. Shop            | 1   | (0,3) |
| M. S. 22, Military Science      | 1   | (0,3) |
| Physics 22 and 24, General      | 5   | (4,3) |
| Elective                        | 2   |       |
|                                 | 18¾ |       |

## JUNIOR YEAR

|                                 |     |       |
|---------------------------------|-----|-------|
| Drawing 31, Kin. & Mach. Design | 1   | (0,3) |
| E. E. 31, D. C. Machinery       | 5   | (5,0) |
| E. E. 31a, Elec. Measurement    | 1½  | (0,4) |
| Eng. 31, Public Speaking        | 2   | (2,0) |
| M. E. 31, Mechanics             | 3   | (3,0) |
| M. E. 35, Power Plants          | 3   | (3,0) |
| M. S. 31, Military Science      | 1   | (0,3) |
| Elective                        | 2   |       |
|                                 | 18½ |       |

|                            |    |       |
|----------------------------|----|-------|
| Drawing 32, Mach. Des.     | 1  | (0,3) |
| E. E. 32, A. C. Circuits   | 5  | (5,0) |
| E. E. 32a, Elec. Lab.      | 1½ | (0,4) |
| M. E. 32, Mechanics        | 3  | (3,0) |
| M. E. 36, Thermodynamics   | 3  | (3,0) |
| M. E. 36b, Mech. Lab.      | 1  | (0,3) |
| M. S. 32, Military Science | ¾  | (0,2) |
| Elective                   | 3  |       |
|                            | 18 |       |

## SENIOR YEAR

|                              |    |       |
|------------------------------|----|-------|
| E. E. 41, A. C. Mach.        | 5  | (5,0) |
| E. E. 41a, Elec. Lab.        | 2  | (1,3) |
| E. E. 45, Elec. Design       | 1  | (0,3) |
| E. E. 47, Electronics        | 2  | (2,0) |
| M. E. 41, Mech. Engr.        | 2  | (2,0) |
| M. E. 41a, Mech. Lab.        | 1  | (0,3) |
| M. E. 49, Mech. of Materials | 3  | (3,0) |
| M. S. 41, Military Science   | 1  | (0,3) |
| Elective                     | 2  |       |
|                              | 19 |       |

|                            |     |       |
|----------------------------|-----|-------|
| E. E. 42, A. C. Machinery  | 3   | (3,0) |
| E. E. 42a, Elec. Lab.      | 2   | (1,3) |
| E. E. 44, Power Trans.     | 3   | (3,0) |
| E. E. 46, Elec. Design     | 1   | (0,3) |
| English 32, Business Law   | 2   | (2,0) |
| M. E. 42.5, Hydraulics     | 2   | (2,0) |
| M. S. 42, Military Science | ¾   | (0,2) |
| Elective                   | 5   |       |
|                            | 18¾ |       |

## MECHANICAL ENGINEERING

The course in mechanical engineering is designed to give the graduate as broad training as possible and to fit him for some specific type of work.

It embraces practically all forms of engineering which have for their objects the application of the forces of nature to the accomplishment of the processes of industry. The course is designed to give an intimate knowledge of the materials used in engineering, the laws of mechanics, and the characteristics of various types of machinery.

The shop courses embrace wood work, forge work, foundry and machine work. The purpose of this instruction is not to turn out skilled workmen but to train those faculties of mind which may best be reached through the work of the hand, and to give the student a clear knowledge of the characteristics and possibilities of the materials used in engineering.

Considerable time is given to the study of the laws of the physical sciences, in such subjects as physics, chemistry, mechanics, electricity and magnetism, and thermodynamics.

During the fourth year stress is laid on the application of the fundamental principles already covered so that the graduate may be able to design or manage those types of machines which ordinarily come under the supervision of the mechanical engineer.

The mechanical engineer should have a liberal education; therefore, in addition to the regular technical work, training is given in English, history, economics, civics, and related subjects.



## MECHANICAL ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                                  |    |       |
|----------------------------------|----|-------|
| Chemistry 11, General            | 3½ | (3,2) |
| Drawing 13, Engr. Drawing        | 1½ | (0,4) |
| English 15, Comp. and Amer. Lit. | 3  | (3,0) |
| *History 14, Amer. Ec. Hist.     | 2  | (2,0) |
| Math. 11, Trigonometry           | 5  | (5,0) |
| M. E. 17, or M. E. 12, Shop      | 2  | (0,6) |
| M. S. 11, Military Science       | 1  | (0,3) |
|                                  | 18 |       |

*Second Semester*

|                                           |    |       |
|-------------------------------------------|----|-------|
| Chemistry 12, General                     | 3½ | (3,2) |
| Drawing 14, Engr. Drawing                 | 1½ | (0,4) |
| English 16, Comp. and Amer. Lit.          | 3  | (3,0) |
| *Gov. 12, Amer. Gov't. and Polit. Parties | 2  | (2,0) |
| Math. 12, Analytics and College Algebra   | 5  | (5,0) |
| M. E. 12, or M. E. 17, Shop               | 2  | (0,6) |
| M. S. 12, Military Science                | 1  | (0,3) |
|                                           | 18 |       |

\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                 |     |       |
|---------------------------------|-----|-------|
| Drawing 25, Mechanical          | ¾   | (0,2) |
| Econ. 23, Economics             | 2   | (2,0) |
| English 21, Lit. and Adv. Comp. | 2   | (2,0) |
| Math. 21, Dif. Calculus         | 5   | (5,0) |
| M. E. 23, Mach. Shop            | 1   | (0,3) |
| M. S. 21, Military Science      | 1   | (0,3) |
| Physics 21 and 23, General      | 5   | (4,3) |
| Elective                        | 2   |       |
|                                 | 18½ |       |

|                                            |     |       |
|--------------------------------------------|-----|-------|
| Drawing 26, Elem. Des. and Kin.            | ¾   | (0,2) |
| C. E. 23, Surveying                        | 1   | (1,0) |
| C. E. 23a, Surveying Field and Office Work | ¾   | (0,2) |
| English 22, Lit. and Adv. Comp.            | 2   | (2,0) |
| Math. 22, Int. Calculus                    | 5   | (5,0) |
| M. E. 24, Mach. Shop                       | 1   | (0,3) |
| M. S. 22, Military Science                 | 1   | (0,3) |
| Physics 22 and 24, General                 | 5   | (4,3) |
| Elective                                   | 2   |       |
|                                            | 18½ |       |

## JUNIOR YEAR

|                               |    |       |
|-------------------------------|----|-------|
| Drawing 31, Kin. & Mach. Des. | 1  | (0,3) |
| E. E. 33, D. C. Machinery     | 4  | (4,0) |
| E. E. 33a, Elec. Measurements | 1  | (0,3) |
| English 31, Public Speaking   | 2  | (2,0) |
| M. E. 31, Mechanics           | 3  | (3,0) |
| M. E. 35, Power Plants        | 3  | (3,0) |
| M. E. 35a, Mech. Lab.         | 1  | (0,3) |
| M. S. 31, Military Science    | 1  | (0,3) |
| Elective                      | 2  |       |
|                               | 18 |       |

|                            |     |       |
|----------------------------|-----|-------|
| Drawing 32, Mach. Design   | 1   | (0,3) |
| E. E. 34, A. C. Circuits   | 4   | (4,0) |
| E. E. 34a, Elec. Lab.      | 1   | (0,3) |
| M. E. 38, Ind. Engr.       | 2   | (2,0) |
| M. E. 32, Mechanics        | 3   | (3,0) |
| M. E. 36, Thermodynamics   | 3   | (3,0) |
| M. E. 36a, Mech. Lab.      | 1   | (0,3) |
| M. S. 32, Military Science | ¾   | (0,2) |
| Elective                   | 3   |       |
|                            | 18½ |       |

## SENIOR YEAR

|                                |     |       |
|--------------------------------|-----|-------|
| E. E. 43, A. C. Machinery      | 3   | (3,0) |
| E. E. 43a, Elec. Lab.          | 1   | (0,3) |
| M. E. 43, Power Plants         | 3   | (3,0) |
| M. E. 43a, Mech. Lab.          | 1½  | (0,4) |
| *M. E. 45, Gas Engines         | 2   | (2,0) |
| *M. E. 45a, Design             | 1   | (0,3) |
| M. E. 49, Mechan. of Materials | 3   | (3,0) |
| M. S. 41, Military Science     | 1   | (0,3) |
| Elective                       | 2   |       |
|                                | 17½ |       |

|                            |     |       |
|----------------------------|-----|-------|
| English 32, Business Law   | 2   | (2,0) |
| M. E. 42, Hydraulics       | 3   | (3,0) |
| M. E. 42a, Mech. Lab.      | ¾   | (0,2) |
| M. E. 44, Power Plants     | 3   | (3,0) |
| M. E. 44a, Lab.            | 1½  | (0,4) |
| *M. E. 46, Steam Turbines  | 2   | (2,0) |
| *M. E. 46a, Design         | 1   | (0,3) |
| M. S. 42, Military Science | ¾   | (0,2) |
| **Elective                 | 5   |       |
|                            | 18½ |       |

|                           |   |       |
|---------------------------|---|-------|
| *M. E. 47, Heat and Vent. | 2 | (2,0) |
| *M. E. 47a, Design        | 1 | (0,3) |

|                           |   |       |
|---------------------------|---|-------|
| *M. E. 48, Heat and Vent. | 2 | (2,0) |
| *M. E. 48a, Design        | 1 | (0,3) |

\*M. E. 47, 47a, 48, 48a are optional in place of M. E. 45, 45a, 46, 46a.

\*\*Two electives must be approved by head of Department.

## SCHOOL OF GENERAL SCIENCE

The School of General Science offers four-year courses both in General Science and in Pre-Medicine. The course in General Science is planned to meet the needs of students desiring general training in the sciences. It is recommended for men preparing themselves for the professions and it is also available for capable men who find themselves unsuited for technical and vocational courses. The course in Pre-Medicine is described on page 84.

## GENERAL SCIENCE

## FRESHMAN YEAR

*First Semester*

|                                 |          |
|---------------------------------|----------|
| English 15, Comp. and Am.       |          |
| Lit. -----                      | 3 (3,0)  |
| History 14, Am. Econ.           |          |
| History -----                   | 2 (2,0)  |
| Botany 11, General -----        | 3½ (2,4) |
| Chemistry 11, General -----     | 3½ (3,2) |
| M. S. 11, Military Science----- | 1 (0,3)  |
| Modern Language -----           | 3 (3,0)  |
| Math. 17 -----                  | 3 (3,0)  |

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*Second Semester*

|                                 |          |
|---------------------------------|----------|
| English 16, Comp. and Am.       |          |
| Lit. -----                      | 3 (3,0)  |
| Gov. 12, Amer. Gov't -----      | 2 (2,0)  |
| Zool. 12, Gen. Zoology -----    | 3½ (2,4) |
| Chemistry 12, General -----     | 3½ (3,2) |
| M. S. 12, Military Science----- | 1 (0,3)  |
| Modern Language -----           | 3 (3,0)  |
| Math. 18 -----                  | 3 (3,0)  |

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## SOPHOMORE YEAR

|                                 |          |
|---------------------------------|----------|
| English 21, Lit. and Adv.       |          |
| Comp. -----                     | 2 (2,0)  |
| Physics 11, General -----       | 3½ (3,2) |
| M. S. 21, Military Science----- | 1 (0,3)  |
| Modern Language (Cont.)-----    | 3 (3,0)  |
| Geology 23, or Natural          |          |
| Science -----                   | 3 (3,0)  |
| Math. 21, or Approved           |          |
| Elective -----                  | 5 (5,0)  |

17½-20

|                                 |          |
|---------------------------------|----------|
| English 22, Lit. and Adv.       |          |
| Comp. -----                     | 2 (2,0)  |
| Physics 12, General -----       | 3½ (3,2) |
| M. S. 22, Military Science----- | 1 (0,3)  |
| Modern Language (Cont.)-----    | 3 (3,0)  |
| Nat. Science, or Approved       |          |
| Elect. -----                    | 3 (3,0)  |
| Math. 22, or Approved           |          |
| Elective -----                  | 5 (5,0)  |

17½-20

## JUNIOR YEAR

|                                 |         |
|---------------------------------|---------|
| English 31, Public Speaking--   | 2 (2,0) |
| Psychol. 35, Psychology -----   | 3 (2,2) |
| History 31, Hist. of Civiliz--  | 3 (3,0) |
| M. S. 31, Military Science----- | 1 (0,3) |
| Approved Elective -----         | 6-8     |
| Free Elective -----             | 3       |

18-20

|                                 |         |
|---------------------------------|---------|
| English 32, Business Law-----   | 2 (2,0) |
| Psychol. 36, Psychology -----   | 3 (2,2) |
| History 32, Hist. of Civiliz--  | 3 (3,0) |
| M. S. 32, Military Science----- | ½ (0,2) |
| Approved Elective -----         | 6-8     |
| Free Elective -----             | 3½      |

18-20

## SENIOR YEAR

|                                 |         |
|---------------------------------|---------|
| Econ. 23, Economics -----       | 2 (2,0) |
| M. S. 41, Military Science----- | 1 (0,3) |
| Approved Elective -----         | 10-11½  |
| Free Elective -----             | 5       |
| English 50, Thesis -----        | ½ (0,2) |

18½-20

|                                 |         |
|---------------------------------|---------|
| Econ. 24, Economics -----       | 2 (2,0) |
| Sociol. 31, Sociology -----     | 2 (2,0) |
| M. S. 42, Military Science----- | ½ (0,2) |
| Approved Elective -----         | 8-10    |
| Free Elective -----             | 5½      |

18-20

*Approved Electives.* All courses offered by the following departments: Agricultural economics, botany and bacteriology, chemistry, economics and government, psychology and sociology, English, geology and mineralogy, history, mathematics, foreign language, physics, religion, vocational education, and zoology and entomology. Courses in the following subjects are also approved electives: Art appreciation, genetics, history of architecture, and history of art.

### ADDITIONAL REQUIREMENTS

*Modern Language.* For graduation in this course at least the second year of one foreign language must be completed in college.

*Electives.* Of the minimum of one hundred and forty-six semester credit hours required for graduation, not more than sixteen and two-thirds may be free electives. All other courses selected by the student must be from the list of approved electives. The approved electives must include at least eight hours, exclusive of required courses, in one of the following: calculus, chemistry, or physics; and at least eight hours, exclusive of required courses, in one of the following: economics and government and history, English, modern languages, or sociology and psychology.

*Majors and Minors.* For graduation in this course a major of at least twenty semester hours and a minor of at least fourteen semester hours must be completed, respectively, in two of the following fields: economics and government and history, English, mathematics, modern language, physics, and sociology and psychology. The credit hours which constitute the major and minor, respectively, may include the required subjects, approved electives, and the eight-hour requirements outlined above.

### PRE-MEDICAL COURSE

The course in Pre-Medicine is designed to meet the general entrance requirements of standard medical colleges. Since, however, requirements for entrance to various medical schools are

not uniform, the student before choosing his electives should consult the specific requirements of the medical college of his preference.

Those preparing for the study of medicine are advised to complete four years of undergraduate work before entering a medical school. Clemson College, however, will award the degree of Bachelor of Science in Pre-Medicine to a student who, after completing all requirements of the first three years of the Pre-Medical Course, is graduated from a medical college approved by the American Medical Association, provided that during his three years at Clemson he has elected and received credit for Economics 23 and 24 and for Sociology 31.

## PRE-MEDICINE

### FRESHMAN YEAR

(Same as General Science. See page 82)

### SOPHOMORE YEAR

| <i>First Semester</i>                    |                  | <i>Second Semester</i>           |       |
|------------------------------------------|------------------|----------------------------------|-------|
| Eng. 21, Lit. and Adv. Comp.---2         | (2,0)            | Eng. 22, Lit. and Adv. Comp.---2 | (2,0) |
| Physics 13, General -----4               | (3,3)            | Physics 14, General -----4       | (3,3) |
| German 21 or French 21-----3             | (3,0)            | German 22 or French 22 -----3    | (3,0) |
| Math. 23, Dif. Calculus -----3           | (3,0)            | Math. 24, Int. Calculus -----3   | (3,0) |
| Chem. 25, Organic -----5                 | (3,6)            | Chem. 26, Organic -----5         | (3,6) |
| M. S. 21, Military Science ---1          | (0,3)            | M. S. 22, Military Science---1   | (0,3) |
| Drawing 11, Freehand ----- $\frac{3}{4}$ | (0,2)            |                                  |       |
|                                          | 18 $\frac{3}{4}$ |                                  | 18    |

### JUNIOR YEAR

|                                            |                  |                                                 |       |
|--------------------------------------------|------------------|-------------------------------------------------|-------|
| English 31, Public Speaking---2            | (2,0)            | English 32, Business Law ---2                   | (2,0) |
| Psychol. 35, Psychology -----3             | (2,2)            | Psychol. 36, Psychology -----3                  | (2,2) |
| History 31, Hist. of Civiliz.---3          | (3,0)            | History 32, Hist. of Civiliz.---3               | (3,0) |
| M. S. 31, Military Science ---1            | (0,3)            | M. S. 32, Military Science--- $\frac{3}{4}$     | (0,2) |
| Bact. 31, General (3 $\frac{1}{4}$ ) or    |                  | Chem. 24, Quant. Anal. -----4 $\frac{3}{4}$     | (2,8) |
| Chem. 23, Qualitative -----4 $\frac{3}{4}$ |                  | Zoology, or Approved Elective---2 $\frac{3}{4}$ |       |
| Zoology 33, Adv. Zool.-----2 $\frac{3}{4}$ | (2,2)            | *Elective -----3                                |       |
| *Elective -----3-4 $\frac{3}{4}$           |                  |                                                 | 19    |
|                                            | 19 $\frac{3}{4}$ |                                                 |       |

### SENIOR YEAR

|                                |                  |                                             |       |
|--------------------------------|------------------|---------------------------------------------|-------|
| M. S. 41, Military Science---1 | (0,3)            | M. S. 42, Military Science--- $\frac{3}{4}$ | (0,2) |
| Econ. 23, Economics -----2     | (2,0)            | Econ. 24, Economics -----2                  | (2,0) |
| Sociol. 31, Sociology -----2   | (2,0)            | Chem. 32, or Approved                       |       |
| Chem. 31, or Approved          |                  | Elective -----4 $\frac{3}{4}$               |       |
| Elective -----4 $\frac{3}{4}$  |                  | Chem. 38, or Approved                       |       |
| Chem. 37, or Approved          |                  | Elective -----2                             |       |
| Elective -----2                |                  | *Elective -----8                            |       |
| *Elective -----6               |                  |                                             | 17    |
|                                | 17 $\frac{3}{4}$ |                                             |       |

\*Of all elective courses not more than sixteen and two-thirds hours may be free elective. All other courses selected by the student must be from the list of General Science approved electives.



## SCHOOL OF TEXTILES

The growth of the textile industry in the South has been phenomenal, and it offers many opportunities to young men for advancement to excellent positions of responsibility. At the same time there has more recently developed a very heavy demand for men specially trained in the different branches of the textile industry; namely, textile engineering, textile chemistry and dyeing, and weaving and designing. With increased competition, prices become lower and a higher quality of work is necessary in order to get the business. Increasing labor and material costs require greater economies and new and shorter processes. These results are possible through the cooperation of a competent technical staff.

The textile course in its entirety (see courses outlined below) has been developed to meet this demand for well-trained men to fill these positions. It has been cooperatively developed by many men who have spent years in the textile industry, right out in the mills, on the front line, studying these very problems and processes, and who are familiar with the type of training necessary for this work. The course has not been developed from the purely theoretical or academic standpoint.

Throughout the four years practical work with regular textile equipment in the college plant supplements the theory taught. This is done with the view of combining theory and practice and developing in the student habits of accurate observation and some skill in manipulation of the machines involved. In this work special consideration is given to economy of time, precision of results, and attention to details, as well as to methods of fundamental importance.

These courses so equip the graduate that he may confidently look forward to a successful career provided he supplements his training with the necessary energy, application, and tact.

Students in the School of Textiles are encouraged to work in the industry during their vacation periods in order to get

the practical mill experience which is necessary for advancement in the industry. This practical experience better enables the student to understand the theory underlying these manufacturing practices.

## TEXTILE ENGINEERING

The course in textile engineering is designed to give the student sound training, both theoretical and practical, in the sciences upon which manufacturing processes are based. It is a well-rounded course in that the strictly textile subjects are supplemented by related fundamental engineering subjects as well as by subjects of general educational value (See School of Textiles for complete write-up). All Yarn Manufacturing courses for freshmen, sophomores, and juniors are offered both semesters.

## TEXTILE ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                              |    |       |
|------------------------------|----|-------|
| Chemistry 11, General        | 3½ | (3,2) |
| Drawing 13, Engineering      | 1½ | (0,4) |
| English 15, Comp. & Am. Lit. | 3  | (3,0) |
| History 14, Am. Ec. Hist.    | 2  | (2,0) |
| Math. 11, Trigonometry       | 5  | (5,0) |
| M. E. 15, Woodwork           | ¾  | (0,2) |
| M. S. 11, Military Science   | 1  | (0,3) |
| *Y. M. 11, Textiles          | 1¾ | (1,2) |
| <hr/>                        |    |       |
| 18¾                          |    |       |

#### *Second Semester*

|                                       |    |       |
|---------------------------------------|----|-------|
| Chemistry 12, General                 | 3½ | (3,2) |
| Drawing 14, Engineering               | 1½ | (0,4) |
| English 16, Comp. & Am. Lit.          | 3  | (3,0) |
| Gov. 12, Am. Gov't. and Pol. Parties  | 2  | (2,0) |
| Math. 12, Analytics & College Algebra | 5  | (5,0) |
| M. S. 12, Military Science            | 1  | (0,3) |
| *W. D. 12, Textiles                   | 1¾ | (1,2) |
| <hr/>                                 |    |       |
| 17¾                                   |    |       |

### SOPHOMORE YEAR

|                                       |    |       |
|---------------------------------------|----|-------|
| Drawing 25, Mechanical                | ¾  | (0,2) |
| English 21, Lit. & Adv. Comp.         | 2  | (2,0) |
| Math. 23, Dif. Calculus               | 3  | (3,0) |
| M. E. 23, Machine Shop                | 1  | (0,3) |
| M. S. 21, Military Science            | 1  | (0,3) |
| Physics 11, General                   | 3½ | (3,2) |
| W. D. 21, Elementary Design           | 2  | (2,0) |
| W. D. 23, Weaving                     | ¾  | (0,2) |
| *Y. M. 21, Pickers                    | 2¾ | (2,2) |
| **W. D. 25 or Y. M. 23, Mill Problems | 2  | (2,0) |
| <hr/>                                 |    |       |
| 18¾                                   |    |       |

|                                       |    |       |
|---------------------------------------|----|-------|
| Drawing 26, El. Des. & Kin.           | ¾  | (0,2) |
| English 22, Lit. & Adv. Comp.         | 2  | (2,0) |
| **W. D. 26 or Y. M. 24, Mill Problems | 2  | (2,0) |
| M. E. 24, Machine Shop                | 1  | (0,3) |
| M. S. 22, Military Science            | 1  | (0,3) |
| Physics 12, General                   | 3½ | (3,2) |
| W. D. 22, Adv. Design                 | 2  | (2,0) |
| W. D. 24, Weaving                     | 1  | (0,3) |
| *Y. M. 22, Cards & Drawing Frames     | 2¾ | (2,2) |
| *Y. M. 28, Cotton Grading             | ¾  | (0,2) |
| <hr/>                                 |    |       |
| 16¾                                   |    |       |

## JUNIOR YEAR

|                                             |                  |                                             |                  |
|---------------------------------------------|------------------|---------------------------------------------|------------------|
| M. E. 31, Mechanics -----3                  | (3,0)            | Eng. 32, Bus. Law -----2                    | (2,0)            |
| E. E. 35, Elec. Mach. -----2                | (2,0)            | M. E. 34, Mech. Engr. -----3                | (3,0)            |
| E. E. 35a, Elec. Lab. ----- $\frac{2}{3}$   | (0,2)            | M. E. 34a, Mech. Engr. Lab. $\frac{2}{3}$   | (0,2)            |
| M. S. 31, Military Science---1              | (0,3)            | M. S. 32, Military Science--- $\frac{2}{3}$ | (0,2)            |
| T. Chem. 31, Tex. Chem. ----2 $\frac{2}{3}$ | (2,2)            | T. Chem. 32, Tex. Chem.----2 $\frac{2}{3}$  | (2,2)            |
| W. D. 31, Design -----2                     | (2,0)            | T. Chem. 46.5, Microscopy--1 $\frac{1}{3}$  | (1,1)            |
| W. D. 33, Fabric Analysis---1               | (0,2)            | W. D. 34, Fabric Analysis---1               | (0,2)            |
| W. D. 35, Weaving ----- $\frac{2}{3}$       | (0,2)            | W. D. 36, Weaving ----- $\frac{2}{3}$       | (0,2)            |
| *Y. M. 31, Roving Frames---2 $\frac{2}{3}$  | (2,2)            | *Y. M. 34, Spinning -----3                  | (2,3)            |
| Electives -----3                            |                  | Electives -----3 $\frac{2}{3}$              |                  |
|                                             | 18 $\frac{2}{3}$ |                                             | 18 $\frac{2}{3}$ |

## SENIOR YEAR

|                                             |                  |                                             |       |
|---------------------------------------------|------------------|---------------------------------------------|-------|
| Econ. 23, Econ. -----2                      | (2,0)            | Sociol. 31, Sociology -----2                | (2,0) |
| Eng. 31, Public Speaking ---2               | (2,0)            | M. S. 42, Military Science--- $\frac{2}{3}$ | (0,2) |
| M. S. 41, Military Science---1              | (0,3)            | T. Chem. 42, Dyeing -----2 $\frac{2}{3}$    | (2,2) |
| T. Chem. 41, Dyeing -----2 $\frac{2}{3}$    | (2,2)            | W. D. 44, Warp Preparation--2               | (2,0) |
| W. D. 41, Jac. Weaving----1 $\frac{2}{3}$   | (1,2)            | W. D. 46, Weaving ----- $\frac{2}{3}$       | (0,2) |
| W. D. 43, Cost Finding ----3                | (3,0)            | W. D. 48, Knitting ----- $\frac{2}{3}$      | (0,2) |
| W. D. 45, Pattern Weaving-- $\frac{2}{3}$   | (0,2)            | Y. M. 42, Combers -----1 $\frac{2}{3}$      | (1,2) |
| Y. M. 43, Doubling & Draft--1 $\frac{2}{3}$ | (1,2)            | Y. M. 44, Mill Econ. -----2                 | (2,0) |
| Y. M. 50, Thesis -----1                     | (0,2)            | W. D. 50, Thesis -----1                     | (0,2) |
| Electives -----2 $\frac{2}{3}$              |                  | Electives -----4 $\frac{2}{3}$              |       |
|                                             | 18 $\frac{1}{3}$ |                                             | 18    |

\*Offered both semesters.

\*\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Textile Engineering.

## TEXTILE CHEMISTRY AND DYEING

The many new chemical processes now available for use in the bleaching, dyeing, and finishing of textiles are largely responsible for the present demand for chemists in the textile industry. Such processes when properly executed give new, novel and desirable results; they require, however, the careful supervision of technically trained men.

This four-year course has been planned to give a thorough training in the fundamental theories of chemistry and dyeing with special emphasis on the application of these theories to the practical accomplishments of the textile industry. (See School of Textiles for complete write-up.)

## TEXTILE CHEMISTRY AND DYEING

## FRESHMAN YEAR

*First Semester*

|                              |    |       |
|------------------------------|----|-------|
| Chemistry 13, General        | 4  | (3,3) |
| Drawing 13, Engineering      | 1½ | (0,4) |
| English 15, Comp. & Am. Lit. | 3  | (3,0) |
| History 14, Am. Ec. Hist.    | 2  | (2,0) |
| Math. 11, Trigonometry       | 5  | (5,0) |
| M. E. 15, Woodwork           | ¾  | (0,2) |
| M. S. 11, Military Science   | 1  | (0,3) |
| *Y. M. 11, Textiles          | 1½ | (1,2) |

18¾

*Second Semester*

|                                       |    |       |
|---------------------------------------|----|-------|
| Chemistry 14, General                 | 4  | (3,3) |
| Drawing 14, Engineering               | 1½ | (0,4) |
| English 16, Comp. & Am. Lit.          | 3  | (3,0) |
| Gov. 12, Am. Gov't. and Pol. Parties  | 2  | (2,0) |
| Math. 12, Analytics & College Algebra | 5  | (5,0) |
| M. S. 12, Military Science            | 1  | (0,3) |
| *W. D. 12, Textiles                   | 1½ | (1,2) |

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## SOPHOMORE YEAR

|                              |    |       |
|------------------------------|----|-------|
| Chem. 23, Qualitative        | 4¾ | (2,8) |
| Eng. 21, Lit. and Adv. Comp. | 2  | (2,0) |
| Math. 23, Diff. Calculus     | 3  | (3,0) |
| Physics 11, General          | 3¾ | (3,2) |
| W. D. 21, Elem. Design.      | 2  | (2,0) |
| W. D. 23, Weaving            | ¾  | (0,2) |
| M. S. 21, Military Science   | 1  | (0,3) |
| *Y. M. 28, Cotton Grading    | ¾  | (0,2) |

17¾

|                              |    |       |
|------------------------------|----|-------|
| Chem. 24, Quantitative       | 4¾ | (2,8) |
| Eng. 22, Lit. and Adv. Comp. | 2  | (2,0) |
| Math. 24, Int. Calculus      | 3  | (3,0) |
| Physics 12, General          | 3¾ | (3,2) |
| W. D. 22, Adv. Design        | 2  | (2,0) |
| W. D. 24, Weaving            | 1  | (0,3) |
| M. S. 22, Military Science   | 1  | (0,3) |

17¾

\*Offered both semesters.

## JUNIOR YEAR

|                             |    |       |
|-----------------------------|----|-------|
| Chem. 31a, Physical         | 3  | (3,0) |
| Econ. 23, Economics         | 2  | (2,0) |
| Eng. 31, Pub. Speaking      | 2  | (2,0) |
| T. C. 35, Textile Chemistry | 5  | (4,3) |
| T. C. 47, Microscopy        | 1½ | (1,1) |
| M. S. 31, Military Science  | 1  | (0,3) |
| Electives                   | 4¾ |       |

19

|                             |    |       |
|-----------------------------|----|-------|
| Chem. 32a, Physical         | 3  | (3,0) |
| Sociol. 31, Sociology       | 2  | (2,0) |
| Eng. 32, Business Law       | 2  | (2,0) |
| T. C. 38, Textile Chemistry | 5  | (4,3) |
| Chem. 33, Adv. Quantitative | 1½ | (0,4) |
| M. S. 32, Military Science  | ¾  | (0,2) |
| Chem. 46, Stoichiometry     | 2  | (2,0) |
| Electives                   | 3  |       |

19

## SENIOR YEAR

|                            |    |       |
|----------------------------|----|-------|
| T. C. 41.5, Dyeing         | 5½ | (4,4) |
| T. C. 43, Cellulose        | 2  | (2,0) |
| T. C. 45, Textile Anal.    | 2  | (1,3) |
| Chem. 43, Colloids         | 2  | (2,0) |
| T. C. 33, Tech. Writing    | 1  | (1,0) |
| M. S. 41, Military Science | 1  | (0,3) |
| T. C. 50, Thesis           | 1  | (0,3) |
| Electives                  | 3¾ |       |

18

|                            |    |       |
|----------------------------|----|-------|
| T. C. 42.5, Dyeing         | 5½ | (4,4) |
| T. C. 48, Synthetic Fibers | 2  | (2,0) |
| T. C. 46, Textile Anal.    | 2  | (1,3) |
| Chem. 44, Colloids         | 2  | (2,0) |
| T. C. 34, Tech. Writing    | 1  | (1,0) |
| M. S. 42, Military Science | ¾  | (0,2) |
| T. C. 51, Thesis           | 1  | (0,3) |
| Electives                  | 4  |       |

18

## WEAVING AND DESIGNING

This course has been provided to meet a growing demand from those who desire special instruction relating to the weaving and designing of fabrics. Special attention is paid to deco-



rative design, dobby design, Jacquard design, pattern weaving, and rayon processing. (See School of Textiles, for complete account).

## WEAVING AND DESIGNING

### FRESHMAN YEAR

(Same as Textile Engineering. See page 86)

### SOPHOMORE YEAR

#### First Semester

|                            |       |     |       |
|----------------------------|-------|-----|-------|
| Drawing 25, Mechanical     | ----  | ¾   | (0,2) |
| English 21, Lit. & Adv.    |       |     |       |
| Comp.                      | ----- | 2   | (2,0) |
| Math. 23, Dif. Calculus    | ----- | 3   | (3,0) |
| M. E. 23, Machine Shop     | ----- | 1   | (0,3) |
| M. S. 21, Military Science | ----- | 1   | (0,3) |
| Physics 11, General        | ----- | 3¾  | (3,2) |
| W. D. 21, Elem. Design     | ----- | 2   | (2,0) |
| W. D. 23, Weaving          | ----- | ¾   | (0,2) |
| *Y. M. 21, Pickers         | ----- | 2¾  | (2,2) |
| **W. D. 25 or Y. M. 23,    |       |     |       |
| Mill Problems              | ----- | 2   | (2,0) |
|                            |       | 18¾ |       |

#### Second Semester

|                            |       |     |       |
|----------------------------|-------|-----|-------|
| Arch. 14, Drawing          | ----- | 1½  | (0,4) |
| English 22, Lit. & Adv.    |       |     |       |
| Comp.                      | ----- | 2   | (2,0) |
| M. E. 24, Machine Shop     | ----- | 1   | (0,3) |
| M. S. 22, Military Science | ----- | 1   | (0,3) |
| Physics 12, General        | ----- | 3¾  | (3,2) |
| W. D. 22, Advanced Des.    | ----- | 2   | (2,0) |
| W. D. 24, Weaving          | ----- | 1   | (0,3) |
| *Y. M. 22, Cards & Drawing |       |     |       |
| Frames                     | ----- | 2¾  | (2,2) |
| **W. D. 26 or Y. M. 24,    |       |     |       |
| Mill Problems              | ----- | 2   | (2,0) |
| *Y. M. 28                  | ----- | ¾   | (0,2) |
|                            |       | 17½ |       |

### JUNIOR YEAR

|                               |       |     |       |
|-------------------------------|-------|-----|-------|
| Arch. 23.5, Dec. Des. & Color | ----- | 1   | (0,3) |
| E. E. 35, Elec. Mach.         | ----- | 2   | (2,0) |
| E. E. 35a, Elec. Lab.         | ----- | ¾   | (0,2) |
| M. S. 31, Military Science    | ----- | 1   | (0,3) |
| M. E. 31, Mechanics           | ----- | 3   | (3,0) |
| W. D. 31, Dobby Design        | ----- | 2   | (2,0) |
| W. D. 33, Fabric Analysis     | ----- | 1   | (0,2) |
| W. D. 35, Weaving             | ----- | ¾   | (0,2) |
| W. D. 37, Rayon Processing    | ----- | 1¾  | (1,2) |
| *Y. M. 31, Roving Frames      | ----- | 2¾  | (2,2) |
| Electives                     | ----- | 3   |       |
|                               |       | 18¾ |       |

|                               |       |    |       |
|-------------------------------|-------|----|-------|
| Arch. 24.5, Dec. Des. & Color | ----- | 1  | (0,3) |
| English 32, Business Law      | ----- | 2  | (2,0) |
| M. E. 34, Mech. Engr.         | ----- | 3  | (3,0) |
| M. E. 34a, M. E. Lab.         | ----- | ¾  | (0,2) |
| M. S. 32, Military Science    | ----- | ¾  | (0,2) |
| W. D. 32, Adv. Dobby Des.     | ----- | 2  | (2,0) |
| W. D. 34, Fabric Analysis     | ----- | 1  | (0,2) |
| W. D. 36, Weaving             | ----- | ¾  | (0,2) |
| *Y. M. 34, Spinning           | ----- | 3  | (2,3) |
| Electives                     | ----- | 4  |       |
|                               |       | 18 |       |

### SENIOR YEAR

|                               |       |     |       |
|-------------------------------|-------|-----|-------|
| Arch. 33.5, Dec. Des. & Comp. | ----- | 1   | (0,3) |
| English 31, Public Speaking   | ----- | 2   | (2,0) |
| Econ. 23, Econ.               | ----- | 2   | (2,0) |
| M. S. 41, Military Science    | ----- | 1   | (0,3) |
| T. Chem. 39, Dyeing           | ----- | ¾   | (0,2) |
| W. D. 41, Jacquard Weaving    | ----- | 1¾  | (1,2) |
| W. D. 43, Cost Finding        | ----- | 3   | (3,0) |
| W. D. 45.5, Pattern Weaving   | ----- | 2   | (0,6) |
| Y. M. 43, Doubling & Dftg.    | ----- | 1¾  | (1,2) |
| Electives                     | ----- | 3¾  |       |
|                               |       | 18¾ |       |

|                              |       |    |       |
|------------------------------|-------|----|-------|
| Sociol. 31, Sociology        | ----- | 2  | (2,0) |
| M. S. 42, Military Science   | ----- | ¾  | (0,2) |
| Text. Chem. 46.5, Microscopy | ----- | 1¾ | (1,1) |
| Text. Chem. 40, Dyeing       | ----- | ¾  | (0,2) |
| W. D. 42, Jacquard Design    | ----- | 2½ | (1,4) |
| W. D. 44, Warp Preparation   | ----- | 2  | (2,0) |
| W. D. 46.5, Pattern Weaving  | ----- | 2  | (0,6) |
| W. D. 48, Knitting           | ----- | ¾  | (0,2) |
| W. D. 50, Thesis             | ----- | 1  | (0,2) |
| Y. M. 44, Mill Econ.         | ----- | 2  | (2,0) |
| Electives                    | ----- | 3¾ |       |
|                              |       | 18 |       |

\*Y. M. courses offered both semesters.

\*\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Weaving and Designing.

## SCHOOL OF VOCATIONAL EDUCATION

The School of Vocational Education offers four-year curricula leading to the degree of Bachelor of Science in Vocational Agricultural Education, Education, Industrial Education, and Textile Industrial Education. Courses are also made available for students of the other Schools of the College. By making a proper program of studies it is possible for students to meet the professional requirements in subject matter and in education and to qualify for the teacher's certificate in this State. Students who are planning to teach in high schools are advised to plan not only their courses in education, but also their subject-matter courses so as to fulfill the State requirements for the particular type of work which they expect to teach in the state. (The office of the School of Vocational Education has a file of information on this subject.) Students who are interested are invited to consult the Dean and other members of the Vocational Education staff for information.

Practice teaching in several subjects, in cooperation with the State Department of Education and nearby school systems, constitutes part of the student's training. Students should plan this work well in advance so that they may conform to the schedule of the high school including registration at the opening of school. Publishers of State-adopted textbooks have been invited to place copies of their publications on file in the Education library, and many have responded. These publications are available for examination by teachers and prospective teachers during the regular session of summer school.

While employment cannot be guaranteed, the School of Vocational Education maintains a Teacher Placement Service with which students who desire aid in securing employment may register and from which superintendents of schools and other employers may receive assistance in communicating with, or interviewing prospective teachers. Both students and employers of teachers are invited to use this service. The Office of the Teacher Placement Service is in Room 103, Education Building.

## VOCATIONAL AGRICULTURAL EDUCATION

The curriculum in Agricultural Education is designed to give the student a cross-section of the types of agriculture in the State and to provide an opportunity to study agriculture from the standpoint of the teacher, the practical farmer, and the closely related agricultural business man where the farm as a unit is emphasized.

Professional training of the student is planned to provide an opportunity for the study of a cross-section of rural life and its organizations with particular emphasis on the contribution of the public school. Students participate in community organizations as a part of their first-hand training. They are taught to cooperate with State and National organizations which affect rural life and agriculture directly and indirectly. This curriculum with the central aim on teaching is designed primarily to train students for the professional field of teaching vocational agriculture and other closely related fields in which a knowledge of the business of farming is essential, and in which skill in dealing with groups of people as well as with individuals is important.

One hundred forty semester hours of credit are required for graduation. Fourteen semester hours of free electives are allowed.

Teachers of agriculture and others who are interested in graduate training in Agriculture Education should procure a copy of the 1939 summer school catalog as soon as published. A number of the courses listed in the Agricultural Education curriculum and other appropriate courses in Agricultural Education will be offered in the 1939 summer session.

# VOCATIONAL AGRICULTURAL EDUCATION

## FRESHMAN YEAR

### First Semester

|                            |    |       |
|----------------------------|----|-------|
| Agr. 11, Field Crops       | 3  | (3,0) |
| Chem. 11, General          | 3½ | (3,2) |
| Draw. 11, Freehand         | ½  | (0,2) |
| Eng. 15, Comp. & Am. Lit.  | 3  | (3,0) |
| Math. 17, First Yr. Col.   | 3  | (3,0) |
| M. S. 11, Military Science | 1  | (0,3) |
| Voc. Ed. 11, Orientation   | 1  | (1,0) |
| Zool. 21, Gen. Zool.       | 2½ | (2,2) |

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### Second Semester

|                                        |    |       |
|----------------------------------------|----|-------|
| A. H. 12, Types, Breeds & Mkt. Classes | 2½ | (2,2) |
| Bot. 16, Agricultural                  | 3½ | (2,4) |
| Chem. 12, General                      | 3½ | (3,2) |
| Draw. 12, Mechanical                   | ½  | (0,2) |
| Eng. 16, Comp. & Am. Lit.              | 3  | (3,0) |
| Gov. 12, Amer. Govt.                   | 2  | (2,0) |
| M. S. 12, Military Science             | 1  | (0,3) |

16½

## SOPHOMORE YEAR

|                            |    |       |
|----------------------------|----|-------|
| Ag. Ec. 22, Ag. Econ.      | 3  | (3,0) |
| Ag. Engr. 22, Farm Mach.   | 2½ | (2,2) |
| Chem. 21a, Organic         | 2  | (2,0) |
| Eng. 21, Lit. & Adv. Comp. | 2  | (2,0) |
| Hort. 22, General Hort.    | 3  | (2,3) |
| M. S. 21, Military Science | 1  | (0,3) |
| Electives                  | 3  |       |

16½

### Suggested Electives:

|                           |    |       |
|---------------------------|----|-------|
| Bact. 31, Gen. Bact.      | 3½ | (2,4) |
| Econ. 23, Prin. of Econ.  | 2  | (2,0) |
| Hist. 14, Am. Econ. Hist. | 2  | (2,0) |
| Rel. 23                   | 2  | (2,0) |

|                               |    |       |
|-------------------------------|----|-------|
| Agr. 20, Soils                | 2½ | (2,2) |
| Dairy 21, Dairying            | 2½ | (2,2) |
| Eng. 22, Lit. & Adv. Comp.    | 2  | (2,0) |
| Geol. 21, Agric.              | 3  | (3,0) |
| M. S. 22, Military Science    | 1  | (0,3) |
| Phys. 27, General             | 3½ | (3,2) |
| Voc. Ed. 22, Int. to Voc. Ed. | 1  | (1,0) |

16

### Suggested Electives:

|                           |   |       |
|---------------------------|---|-------|
| Econ. 24, Prin. of Econ.  | 2 | (2,0) |
| Econ. 32, Money & Banking | 3 | (3,0) |
| Hist. 14, Am. Econ. Hist. | 2 | (2,0) |

## JUNIOR YEAR

|                               |    |       |
|-------------------------------|----|-------|
| Agr. 31, Fertilizers          | 2  | (2,0) |
| A. H. 31, Feeds & Feed.       | 3  | (3,0) |
| Eng. 31, Pub. Speak.          | 2  | (2,0) |
| M. S. 31, Military Science    | 1  | (0,3) |
| Voc. Ed. 31, Int. to Ag. Ed.  | 3  | (1,6) |
| Z. & E. 31, Int. & Appl. Ent. | 2½ | (2,2) |

13½

### Suggested Electives:

|                           |    |       |
|---------------------------|----|-------|
| Ag. Ec. 33, Stat. Methods | 3  | (3,0) |
| Agr. 33, Forage Crops     | 3  | (3,0) |
| A. H. 33, Judging         | ½  | (0,2) |
| A. H. 35, Farm Meats      | 2  | (0,6) |
| Dairy 31, Judging         | 1  | (0,3) |
| Hort. 31, Plant Prop.     | 2½ | (2,2) |
| Soc. 31, Elem. Sociology  | 2  | (2,0) |

|                              |    |       |
|------------------------------|----|-------|
| Ag. Ec. 32, Farm Org. & Mgt. | 2½ | (2,2) |
| Ag. Engr. 38, Soil Consv.    | 2  | (1,3) |
| A. H. 34, Pork Production    | 2½ | (2,2) |
| Hort. 32, Landscape Des.     | 2½ | (2,2) |
| M. S. 32, Military Science   | ½  | (0,2) |
| P. H. 32, Farm Poultry       | 2½ | (2,2) |
| Voc. Ed. 30, Ed. Psych.      | 3  | (3,0) |

16½

### Suggested Electives:

|                              |    |       |
|------------------------------|----|-------|
| Ag. Engr. 46, Farm Buildings | 2  | (1,3) |
| Eng. 32, Bus. Law            | 2  | (2,0) |
| Z. & E. 44, Beekeeping       | 2½ | (2,2) |

## SENIOR YEAR

|                             |    |       |
|-----------------------------|----|-------|
| Ag. Ec. 41, Marketing       | 3  | (3,0) |
| Ag. Ec. 43, Finance & Acct. | 3  | (3,0) |
| Agr. 43, Farm Problems      | 2  | (2,0) |
| Agr. 45, Crop Nutrition     | 2  | (2,0) |
| Bot. 45, Plant Pathology    | 2½ | (2,2) |
| M. S. 41, Military Science  | 1  | (0,3) |
| Voc. Ed. 41, Prin. Voc. Ed. | 4  | (1,9) |

17½

### Suggested Electives:

|                            |    |       |
|----------------------------|----|-------|
| Agr. 53, Cotton            | 2  | (2,0) |
| A. H. 42, Beef Prod.       | 2½ | (2,2) |
| Vet. Sci. 41, Anat. & Phy. | 2½ | (2,2) |

|                               |    |        |
|-------------------------------|----|--------|
| Hort. 54, Truck Crops         | 2½ | (2,2)  |
| M. S. 42, Military Science    | ½  | (0,2)  |
| Vet. Sci. 42, Ani. Diseases   | 2½ | (2,2)  |
| Voc. Ed. 40, Pract. Teach.    | 5  | (0,15) |
| Voc. Ed. 42, Meth. in Ag. Ed. | 3  | (3,0)  |

14

### Suggested Electives:

|                                |    |       |
|--------------------------------|----|-------|
| Ag. Ec. 42, Rural Sociology    | 3  | (3,0) |
| Agr. 42, Soil Fert. & Mgt.     | 2  | (2,0) |
| Hort. 52, Commercial Pom.      | 2½ | (2,2) |
| P. H. 42, Poultry Prod. & Mgt. | 2½ | (2,2) |



## EDUCATION

The purpose of this curriculum is to train for high school teaching in the fields indicated below. The curriculum has been planned with the view of providing both subject matter and professional courses. It meets the State requirements for certification in South Carolina under the new regulations. The subject-matter fields are designated as teaching majors and teaching minors. The technical and vocational groups are included with the purpose of providing an occupational background for teachers. Free electives are included to permit the student to exercise his own choice in at least a part of his work. Students who desire to enter into the Vocational Agriculture field or the Industrial Education field should enroll in one of those specialized curricula. (See pages 91 and 94.) The Education Curriculum, with appropriate electives, provides excellent preparation for teachers of physical education. (See Voc. Ed. 33, 49.5, 58, 64, etc.)

For the degree of Bachelor of Science in Education the following grouping must be made: a teaching major of 20 semester hours; a first teaching minor of at least 12 semester hours; a second teaching minor of at least 12 semester hours (the semester hours in the teaching major and teaching minor groups may include required subjects in these fields as indicated below); at least 12 semester hours in a vocational or technical field, and 14 semester hours free electives are also required. Other elections are subject to the approval of the Dean. A total of 136 semester hours is required for graduation. The groups of teaching majors, teaching minors, etc., are indicated below.

## EDUCATION

## FRESHMAN YEAR

*First Semester*

|                             |        |       |
|-----------------------------|--------|-------|
| Botany 13, Agricultural     | 2½     | (2,2) |
| Chemistry 11, General       | 3½     | (3,2) |
| English 15, Comp. and Am.   |        |       |
| Lit.                        | 3      | (3,0) |
| History 14, Am. Econ. Hist. | 2      | (2,0) |
| Math. 11 or 17              | 5 or 3 |       |
| M. S. 11, Military Science  | 1      | (0,3) |
| Vocational Education        | 2      |       |

---

 19½ or 17½
*Second Semester*

|                            |        |       |
|----------------------------|--------|-------|
| Botany 14, Agricultural    | 3½     | (2,4) |
| Chemistry 12, General      | 3½     | (3,2) |
| English 16, Comp. and Am.  |        |       |
| Lit.                       | 3      | (3,0) |
| Gov. 12, American Gov't.   | 2      | (2,0) |
| Math. 12 or 18             | 5 or 3 |       |
| M. S. 12, Military Science | 1      | (0,3) |

---

 18 or 16

## SOPHOMORE YEAR

|                                                 |       |                                            |       |
|-------------------------------------------------|-------|--------------------------------------------|-------|
| Bact. 31, General Bacteriology-- $3\frac{1}{3}$ | (2,4) | Econ. 24, Economics -----2                 | (2,0) |
| English 21, Lit. and Adv.                       |       | English 22, Lit. and Adv.                  |       |
| Comp. -----2                                    | (2,0) | Comp. -----2                               | (2,0) |
| M. S. 21, Military Science--1                   | (0,3) | M. S. 22, Military Science--1              | (0,3) |
| Chemistry 21 or 23 -----3                       | (2,3) | Chemistry 22 or 24 -----3                  | (2,3) |
| Zool. 21, Gen. Zoology ----- $2\frac{2}{3}$     | (2,2) | Physics 12 or 22-24 ----- $3\frac{2}{3}$   | (3,2) |
| Physics 11 or 21-23 ----- $3\frac{2}{3}$        | (3,2) | or 5                                       |       |
| or 5                                            |       | Voc. or Tech. group -----3                 |       |
| Voc. or Tech. group -----3                      |       | Free electives -----2                      |       |
| <hr/> 18 $\frac{2}{3}$ or 20 $\frac{2}{3}$      |       | <hr/> 16 $\frac{2}{3}$ or 18 $\frac{2}{3}$ |       |

## JUNIOR YEAR

|                                              |       |                                            |       |
|----------------------------------------------|-------|--------------------------------------------|-------|
| English 31, Public Speaking--2               | (2,0) | Sociol. 31, Sociology -----2               | (2,0) |
| M. S. 31, Military Science--1                | (0,3) | M. S. 32, Military Science-- $\frac{2}{3}$ | (0,2) |
| Voc. Ed. 35, Psychology -----3               | (2,2) | Voc. Ed. 45, Teach. Science--3             | (3,0) |
| Voc. Ed. 39, Principles -----3               | (3,0) | Voc. or Tech. group-----3                  |       |
| Ent. 31, Int. to Appl. Ent.-- $2\frac{2}{3}$ | (2,2) | Teaching Major and Minor--4                |       |
| Voc. or Tech. group-----3                    |       | Free electives -----5                      |       |
| Teaching Major and Minor-- $3\frac{1}{3}$    |       | <hr/> 17 $\frac{2}{3}$                     |       |
| <hr/> 18                                     |       |                                            |       |

## SENIOR YEAR

|                                   |       |                                            |       |
|-----------------------------------|-------|--------------------------------------------|-------|
| Voc. Ed. 49, Health and P. Ed.--2 | (2,0) | Voc. Ed. 47, Hist. & Philos.               |       |
| Voc. Ed. 51, Pract. Teaching--3   | (0,6) | of Education -----2                        | (2,0) |
| Voc. Ed. 59, Administration--2    | (2,0) | Voc. Ed. 52, Pract. Teaching--3            | (0,6) |
| M. S. 41, Military Science--1     | (0,3) | M. S. 42, Military Science-- $\frac{2}{3}$ | (0,2) |
| Teaching Major and Minor--6       |       | Teaching Major and Minor-- $5\frac{2}{3}$  |       |
| Free electives -----2             |       | Free electives -----5                      |       |
| <hr/> 16                          |       | <hr/> 16 $\frac{1}{3}$                     |       |

I TEACHING MAJORS: 1. Biological Science, including Botany, Bacteriology, and Zoology. 2. Chemistry. 3. Mathematics. 4. Physics. 5. Social Science.

II TEACHING MINORS: First Teaching Minor: One of these above not classed as major.  
Second Teaching Minor: Social Science, including History, Economics.

III VOCATIONAL OR TECHNICAL GROUPS

1. Agriculture—Agronomy, Animal Husbandry, Bacteriology and Botany, Horticulture, Poultry.
2. Textiles—Textile Chemistry, Weaving and Designing, Yarn Manufacturing.
3. Engineering—Architecture, Drawing, Civil, Electrical, Mechanical.

## INDUSTRIAL EDUCATION

The curriculum in Industrial Education is intended to prepare students to teach industrial subjects, industrial arts, drawing, manual training, metal work, etc., in the high schools and to supervise the teaching of evening trade classes. The four-year curriculum includes the study of the major industries of South Carolina. The freshman year includes training in textiles. Students who complete this curriculum are prepared to teach

manual training, drawing, woodwork, home mechanics, general subjects, and mathematics. A total of 140 semester hours is required for graduation. Provision is made for 14 semester hours free electives. A student may take as many as 20 hours per semester.

There has been, and is at present, an unusual demand for Clemson men trained in this field.

## INDUSTRIAL EDUCATION

### FRESHMAN YEAR

#### *First Semester*

|                                         |    |       |
|-----------------------------------------|----|-------|
| Chem. 11, General .....                 | 3½ | (3,2) |
| Drawing 13, Engineering.....            | 1½ | (0,4) |
| English 15, Comp. & Am. Lit. ....       | 3  | (3,0) |
| History 14, Am. Ec. Hist.....           | 2  | (2,0) |
| Math. 17, First Year College Math. .... | 3  | (3,0) |
| M. E. 17, or 12, Shop.....              | 2  | (0,6) |
| M. S. 11, Military Science.....         | 1  | (0,3) |
| Voc. Ed. 11, Orientation.....           | 1  | (1,0) |
| Y. M. 11, Gen. Textiles.....            | 1½ | (1,2) |

---

18½

#### *Second Semester*

|                                         |    |       |
|-----------------------------------------|----|-------|
| Chem. 12, General .....                 | 3½ | (3,2) |
| Drawing 14, Engineering.....            | 1½ | (0,4) |
| Eng. 16, Comp. & Am. Lit.....           | 3  | (3,0) |
| Gov. 12, Am. Gov. & Pol. Parties .....  | 2  | (2,0) |
| Math. 18, First Year College Math. .... | 3  | (3,0) |
| M. E. 12, or 17, Shop.....              | 2  | (0,6) |
| M. S. 12, Military Science.....         | 1  | (0,3) |
| W. D. 12, Gen. Textiles.....            | 1½ | (1,2) |

---

17½

Summer industrial employment minimum of four weeks.

### SOPHOMORE YEAR

|                                                  |   |       |
|--------------------------------------------------|---|-------|
| C. E. 23, Surveying .....                        | 1 | (1,0) |
| C. E. 23a, Surveying Field and Office Work ..... | ¾ | (0,2) |
| Draw. 25, Mechanical .....                       | ¾ | (0,2) |
| Eng. 21, Lit. & Adv. Comp.....                   | 2 | (2,0) |
| Econ. 23, Economics .....                        | 2 | (2,0) |
| Math. 25, Industrial Math.....                   | 3 | (3,0) |
| M. E. 22, Mat. of Engr.....                      | 2 | (2,0) |
| M. E. 23, Machine Shop.....                      | 1 | (0,3) |
| M. S. 21, Military Science.....                  | 1 | (0,3) |
| Physics 21 & 23, General.....                    | 5 | (4,3) |
| Draw. 26, El. Des. & Kin.....                    | ¾ | (0,2) |
| Eng. 22, Lit. & Adv. Comp.....                   | 2 | (2,0) |
| Math. 26, Industrial Math.....                   | 3 | (3,0) |
| M. E. 24, Machine Shop.....                      | 1 | (0,3) |
| M. S. 22, Military Science.....                  | 1 | (0,3) |
| Physics 22 & 24, General.....                    | 5 | (4,3) |
| Voc. Ed. 22, Intro. Voc. Ed.....                 | 1 | (1,0) |
| Voc. Ed. 28, Obs. of Voc. Ind. Teaching .....    | 1 | (0,3) |
| Electives .....                                  | 2 |       |

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18½

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16¾

Summer industrial employment minimum of four weeks.

### JUNIOR YEAR

|                                             |    |       |
|---------------------------------------------|----|-------|
| Voc. Ed. 33.5, Art Metal Work .....         | 2  | (1,3) |
| Eng. 31, Public Speak.....                  | 2  | (2,0) |
| M. S. 31, Military Science.....             | 1  | (0,3) |
| Voc. Ed. 31.6, Ind. Arts.....               | 2½ | (2,2) |
| Voc. Ed. 35, Psychol. for Teachers .....    | 3  | (2,2) |
| Voc. Ed. 61, Ind. Lab.....                  | 2  | (0,6) |
| Voc. Ed. 39, Prin. of Sec. Ed.....          | 3  | (3,0) |
| Electives .....                             | 2  |       |
| Eng. 32, Business Law .....                 | 2  | (2,0) |
| M. E. 30, Welding .....                     | 2  | (1,3) |
| M. S. 32, Military Science.....             | ¾  | (0,2) |
| Voc. Ed. 32, Org. of Courses of Study ..... | 3  | (3,0) |
| Voc. Ed. 32.6, Ind. Arts.....               | 2½ | (2,2) |
| Voc. Ed. 38, Teaching of Drawing .....      | 3  | (2,2) |
| Voc. Ed. 62, Ind. Lab.....                  | 2  | (0,6) |
| Electives .....                             | 3¾ |       |

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17¾

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19

## SENIOR YEAR

|                                           |       |                                                |        |
|-------------------------------------------|-------|------------------------------------------------|--------|
| Arch. 41.5, Art Appreciation_2            | (2,0) | Arch. 42.5, Ind. Arts Design_ $\frac{3}{4}$    | (0,2)  |
| E. E. 35, Elec. Mach. -----2              | (2,0) | E. E. 38, Voc. Electricity-----1 $\frac{3}{4}$ | (1,2)  |
| E. E. 35a, Elec. Lab. ----- $\frac{3}{4}$ | (0,2) | Arch. 36, Bldg. Constr.-----2                  | (2,0)  |
| *Sociol. 31, Sociology -----2             | (2,0) | M. S. 42, Military Science_ $\frac{3}{4}$      | (0,2)  |
| Arch. 35, Bldg. Constr. -----3            | (3,0) | *Voc. Ed. 43, Pract. Teach._5                  | (0,10) |
| M. S. 41, Military Science_1              | (0,3) | Voc. Ed. 46, Tech. of Teach._3                 | (3,0)  |
| Voc. Ed. 55, Coordination                 |       | Electives -----3-5                             |        |
| Meth. in Voc. Ed.-----2                   | (1,3) |                                                |        |
| Electives -----3 $\frac{1}{4}$            |       |                                                | 16-18  |

16

\*Offered both semesters.

## TEXTILE INDUSTRIAL EDUCATION

This course has for its purpose the preparation of young men for positions of usefulness and responsibility in vocational departments of schools located in textile communities. The course includes instruction in the fundamental principles of education, engineering and the textile industry.

The prime purpose of the course is to prepare the students for positions as teachers of trade and industrial subjects and as principals of schools in mill communities as well as local supervisors of industrial education. Since the textile industry is the chief one in the state, this industry is given special prominence. The course is essentially a combination of instruction in the textile industry and the training of industrial teachers.

One hundred forty semester hours of credit are required for graduation. Fourteen semester hours of free electives are allowed.



## TEXTILE INDUSTRIAL EDUCATION

## FRESHMAN YEAR

*First Semester**Second Semester*

|                              |    |       |
|------------------------------|----|-------|
| Chem. 11, General            | 3½ | (3,2) |
| Drawing 13, Engineering      | 1½ | (0,4) |
| Eng. 15, Comp. & Am. Lit.    | 3  | (3,0) |
| Hist. 14, Am. Ec. Hist.      | 2  | (2,0) |
| Math. 17, First Year College |    |       |
| Math.                        | 3  | (3,0) |
| M. E. 17, or 12, Shop        | 2  | (0,6) |
| M. S. 11, Military Science   | 1  | (0,3) |
| Voc. Ed. 11, Orientation     | 1  | (1,0) |
| Y. M. 11, Gen. Textiles      | 1½ | (1,2) |

18½

Summer industrial employment minimum of four weeks.

|                            |    |       |
|----------------------------|----|-------|
| Chem. 12, General          | 3½ | (3,2) |
| Drawing 14, Engineering    | 1½ | (0,4) |
| Eng. 16, Comp. & Am. Lit.  | 3  | (3,0) |
| Gov. 12, Am. Gov't.        | 2  | (2,0) |
| Math. 18, Gen. Sci. Math.  | 3  | (3,0) |
| M. E. 17, or 12, Shop      | 2  | (0,6) |
| M. S. 12, Military Science | 1  | (0,3) |
| W. D. 12, Gen. Textiles    | 1½ | (1,2) |

17½

## SOPHOMORE YEAR

|                            |    |       |
|----------------------------|----|-------|
| Drawing 25, Mechanical     | ¾  | (0,2) |
| Eng. 21, Lit. & Adv. Comp. | 2  | (2,0) |
| M. E. 23, Machine Shop     | 1  | (0,3) |
| Math. 25, Industrial Math. | 3  | (3,0) |
| M. S. 21, Military Science | 1  | (0,3) |
| Physics 11, General        | 3½ | (3,2) |
| W. D. 21, Elem. Design     | 2  | (2,0) |
| W. D. 23, Weaving          | ¾  | (0,2) |
| Y. M. 21, Pickers          | 2½ | (2,2) |
| *Y. M. 24, Mill Problems   | 2  | (2,0) |

18½

Summer industrial employment minimum of four weeks.

|                                  |    |       |
|----------------------------------|----|-------|
| Drawing 26, El. Des. & Kin.      | ¾  | (0,2) |
| Eng. 22, Lit. & Adv. Comp.       | 2  | (2,0) |
| M. S. 22, Military Science       | 1  | (0,3) |
| Physics 12, General              | 3½ | (3,2) |
| W. D. 22, Adv. Design            | 2  | (2,0) |
| W. D. 24, Weaving                | ¾  | (0,2) |
| *W. D. 26, Mill Problems         | 2  | (2,0) |
| Y. M. 22, Cards & Draw F.        | 2½ | (2,2) |
| Voc. Ed. 22, Intro. to Voc. Ed.  | 1  | (1,0) |
| Voc. Ed. 28, Observ. of Teaching | 1  | (0,3) |

16½

## JUNIOR YEAR

|                             |    |       |
|-----------------------------|----|-------|
| Sociol. 31, Sociology       | 2  | (2,0) |
| M. S. 31, Military Science  | 1  | (0,3) |
| Voc. Ed. 39, Prin. of Sec.  |    |       |
| Voc. Ed.                    | 3  | (3,0) |
| W. D. 31, Dobby Design      | 2  | (2,0) |
| W. D. 33, Fab. Analysis     | 1  | (0,2) |
| W. D. 35, Fancy Loom Fixing | ¾  | (0,2) |
| Y. M. 31, Rov. Frames       | 2½ | (2,2) |
| Y. M. 34, Spinning          | 3  | (2,3) |
| Electives                   | 2  |       |

17½

|                                       |    |       |
|---------------------------------------|----|-------|
| Eng. 32, Business Law                 | 2  | (2,0) |
| Voc. Ed. 32, Org. of Courses of Study | 3  | (3,0) |
| M. E. 34, Mech. Engr.                 | 3  | (3,0) |
| M. E. 34a, Mech. Engr. Lab.           | ¾  | (0,2) |
| M. S. 32, Military Science            | ¾  | (0,2) |
| W. D. 34, Fab. Analysis               | 1  | (0,2) |
| W. D. 36, Fancy Loom Fixing           | ¾  | (0,2) |
| *Y. M. 28, Cotton Grading             | ¾  | (0,2) |
| Y. M. 42, Combers                     | 1½ | (1,2) |
| Electives                             | 4  |       |

17½

## SENIOR YEAR

|                             |    |       |
|-----------------------------|----|-------|
| E. E. 35, Elec. Mach.       | 2  | (2,0) |
| E. E. 35a, Elec. Lab.       | ¾  | (0,2) |
| Econ. 23, Economics         | 2  | (2,0) |
| Eng. 31, Public Speaking    | 2  | (2,0) |
| M. S. 41, Military Science  | 1  | (0,3) |
| W. D. 43, Cost Finding      | 3  | (3,0) |
| Y. M. 43, Doubling & Draft. | 1½ | (1,2) |
| Electives                   | 5½ |       |

18

## Suggested Electives:

|                          |    |       |
|--------------------------|----|-------|
| Voc. Ed. 31.6, Ind. Arts | 2½ | (2,2) |
| Voc. Ed. 61, Ind. Lab.   | 2  | (0,6) |

|                              |   |        |
|------------------------------|---|--------|
| M. S. 42, Military Science   | ¾ | (0,2)  |
| *Voc. Ed. 43, Prac. Teach.   | 5 | (0,10) |
| Voc. Ed. 46, Tech. of Teach. | 3 | (3,0)  |
| W. D. 44, Warp Prep.         | 2 | (2,0)  |
| W. D. 48, Knitting           | ¾ | (0,2)  |
| Y. M. 44, Mill Econ.         | 2 | (2,0)  |
| Electives                    | 3 |        |

16½

## Suggested Electives:

|                          |    |       |
|--------------------------|----|-------|
| Voc. Ed. 32.6, Ind. Arts | 2½ | (2,2) |
| Voc. Ed. 62, Ind. Lab.   | 2  | (0,6) |
| Econ. 24, Economics      | 2  | (2,0) |

\*Offered both semesters.

# DESCRIPTION OF COURSES\*

## AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

MR. AULL

MR. WILLIAMS    MR. MILLS    \*\*MR. FULMER    MR. FERRIER    MR. BING

AG. EC. 22—ELEMENTARY AGRICULTURAL ECONOMICS—Semester 1 or 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the student with the fundamental principles of Economics in their relation to Agriculture. *Principal Topics:* The students are made acquainted with the terms in general use in agricultural economics and their meaning; the factors of production, the systems of land tenure and the basic social and economic problems confronting agriculture.

MR. AULL AND STAFF

AG. EC. 32—FARM ORGANIZATION AND MANAGEMENT—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study the principles and problems involved in organizing and operating the successful farm business. *Principal Topics:* Farm organization and management; economic specialization in relation to agriculture; types of farming and the economic, physical and biological factors determining them; selection and combination of farm enterprises for highest profits; physical and financial organizations of farms, and farm operation in areas representative of the important types.

MR. FERRIER

AG. EC. 33—STATISTICAL METHODS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* A course in the meaning and application of statistical methods which will train students to make ordinary statistical studies. *Principal Topics:* Sampling, tabular and graphic presentation, averages, ratios and coefficients, dispersion, the theory of probability and error, index numbers, trends, and correlation.

MR. WILLIAMS

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\*Below, and on the pages following, are given in alphabetical order the descriptions of courses, including the subject, catalog number, descriptive title, the purpose, and the principal topics of each course. In general, Freshman courses are numbered from 11 through 19; Sophomore, 20 through 29; Junior, 30 through 39; and Senior, 40 through 60.

\*\*On leave.

**Ag. Ec. 34—PUBLIC FINANCE—Semester 2 (3 and 0) 3 cr.**

*Prerequisite:* Ag. Ec. 22, 33.

*Purpose:* To familiarize the student with the problems of taxation and their economic and social implications with particular reference to agriculture. *Principal Topics:* The essentials of a just and equitable tax; a critical examination of some of the more common revenue-raising measures; budgets, and public expenditures, etc. The student will be given opportunity to study in detail the relative burden of state and local taxes upon different groups of individuals. (*Public Finance*—Lutz.)

MR. AULL

**Ag. Ec. 36—COOPERATION IN AGRICULTURE—Semester 2 (3 and 0) 3 cr.**

*Purpose:* To acquaint the student with the techniques and ethics of the cooperative business method and its applications to producing, purchasing, marketing, and financing in agriculture.

MR. MILLS      MR. BING

**Ag. Ec. 40—ECONOMIC GEOGRAPHY—Semester 2 (3 and 0) 3 cr.**

*Purpose:* A course for those desiring to understand the relation between geography and economic conditions, including the laws of trade. *Principal Topics:* Industrial geography, which includes the geographic, geologic, and climatic laws governing the establishment of any form of industry, all agricultural products, fish, manufacturing, and mineral resources being considered in its terms; commercial geography, which is concerned with the laws of trade and the trade routes of the world; the general influence of geologic factors on international relationship and policy is stressed. (*Industrial and Commercial Geography*—Smith.)

MR. MILLS      MR. BING

**Ag. Ec. 41—PRINCIPLES OF MARKETING—Semester 1 (3 and 0) 3 cr.**

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study problems encountered by farmers in marketing their products. Different channels of trade and types of marketing agencies are studied. *Principal Topics:* A course dealing with the principles of marketing, cooperative marketing, marketing programs, problems, services, etc.; marketing institutions and functions, market grades, and

standardization; storage, warehousing, transportation, future trading, inspection and grading of perishable and staple products with particular reference to agriculture.

MR. AULL

Ag. Ec. 42—RURAL SOCIOLOGY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study human relations as modified by life in the country.

*Principal Topics:* The farm family; its food requirements; its housing, health; schooling; recreational opportunities, and the relation of the farm family to land, whether as owner or tenant.

MR. WILLIAMS

Ag. Ec. 43—FARM FINANCE AND ACCOUNTING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22, 32.

*Purpose:* (a) To analyze financial requirements of individual farmers and of farmers' marketing and purchasing organizations. (b) To understand the fundamental principles of accounting adapted to the farm business, and to make application of accounting data to farm management.

*Principal Topics:* Critical study of different types and forms of accounts; actual practice in record-keeping, beginning with simple operations such as the inventory, the cash book, and ledger; analysis of credit requirements of farmers; investor and depositors as sources of credit; a study of financial institutions serving agriculture, such as farm mortgage companies, federal and joint stock land banks, immediate credit banks, live-stock loan companies, national and state banks, and the federal reserve banks; principles upon which credit is extended; and the cost of credit.

MR. FERRIER

Ag. Ec. 44—LAND ECONOMICS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22, 32, and 33; Senior Standing.

*Purpose:* To study land as a resource, as a factor in production, and its relation to society. *Principal Topics:* A critical treatment of such subjects as land settlement and colonization, land booms and depressions, land valuation and assessment, land price movements and rents. Economic land holding and economic land utilization are studied from individual,



state, and national viewpoints. Particular attention is given to state and national land planning, rural zoning, and conservation. (*Land Economics*—Ely and Wehrwein.)

MR. AULL

AG. EC. 46—FARMERS' MOVEMENTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To give the student a view of the efforts of farmers to organize for the improvement of agriculture and other rural concerns. *Principal Topics:* Beginning with the first local agricultural society, the development of this movement is followed through the period of the Civil War. After 1865, the Grange, Farmers' Alliance, etc., are studied in their chronological order.

MR. MILLS

AG. EC. 51, 52—SEMINAR—Semesters 1 and 2 (1 and 0) 1 cr. each semester.

*Prerequisite:* Senior standing and major in Agricultural Economics.

*Purpose:* To acquaint the student with the relation of economics and sociology to specific problems. *Principal Topics:* Each student will select some problem for intensive study, and the various problems selected will be discussed in their relation to each other and to the current situation.

MR. AULL AND STAFF

## AGRICULTURAL ENGINEERING

MR. NUTT

MR. JONES

AG. ENGR. 22—FARM MACHINERY—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give theoretical and practical training in the operation of modern farm equipment. *Principal Topics:* Construction, operation, requirements and utilization of tillage, seeding, cultivating, harvesting and belt-operated farm machinery. (*Farm Machinery and Equipment*—Smith.)

MR. NUTT

MR. JONES

AG. ENGR. 23—AGR. MECHANICS—Semester I (2 and 3) 3 cr.

*Purpose:* To give the theoretical and practical application of the mechanics pertaining to agriculture. *Principal Topics:* Soldering, cement work, rope work, belts, pulleys and laces, leather work, pipe fitting, painting, wood finishing, and glazing. (*Mechanical Training*—Boss, Dent, and White.)

MR. NUTT                      MR. JONES

AG. ENGR. 35—MOTORS AND POWER MACHINERY—Semester I (2 and 3)  
3 cr.

*Purpose:* To give to the student theories of operation, construction, and utilization of internal combustion engines. *Principal Topics:* History of the internal combustion engine, nomenclature and definitions, principles of operation, power and its measurement, and gas engine troubles. (*Farm Gas Engines and Tractors*—Jones.)

MR. NUTT

AG. ENGR. 38—SOIL CONSERVATION—Semester 2 (1 and 3) 2 cr.

*Purpose:* To provide a less technical course in terracing and drainage for students majoring in Agricultural Education and those majoring in any field of agriculture other than Agricultural Engineering. *Principal Topics:* Elementary surveying, prevention of soil erosion, with equal emphasis on terracing, design, and study of drainage systems. (*Soil Conservation*—Ayres.)

MR. NUTT

AG. ENGR. 43—WATER SUPPLY AND SANITATION—Semester I (2 and 2)  
2 2/3 cr.

*Purpose:* To give the theoretical and practical applications of water supply and sanitation as it is applied in rural homes and communities. *Principal Topics:* Water systems, pumping machinery, plumbing fixtures, sewage disposal systems, water purification systems.

MR. JONES

AG. ENGR. 45—FARM BUILDINGS—Semester I (1 and 3) 2 cr.

*Prerequisite:* Drawing 25 and 28.

*Purpose:* To assist students in the design and construction of farm buildings. *Principal Topics:* Properties of farm building materials, prin-

ciples of concrete construction, essentials and design of typical structures, wood preservatives, specification, cost estimating, and farmstead sanitation. (*Farm Buildings*—Scoates.)

MR. NUTT

AG. ENGR. 46—ADVANCED FARM BUILDINGS—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* Ag. Engr. 45.

*Purpose:* A continuation of Agricultural Engineering 45. *Principal Topics:* A more detailed study of construction, design, and cost estimation of farm buildings. (*Farm Buildings*—Scoates.)

MR. NUTT

AG. ENGR. 48—ADVANCED FARM MACHINERY LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Ag. Engr. 22.

*Purpose:* To provide advanced practical training for students in the School of Agriculture whose major is Agricultural Engineering. *Principal Topics:* Testing and adjusting of tractors, seeding, cultivating, harvesting and belt-operated farm equipment.

MR. NUTT

AG. ENGR. 49—SURVEYAGE AND DRAINAGE—Semester 1 (2 and 3) 3 cr.

*Purpose:* To fulfill the need of instruction dealing with drainage, terracing, reclamation, and surveying problems pertaining to farms. *Principal Topics:* Elementary surveying, design and study of drainage systems, prevention of soil erosion, with special emphasis on terracing, land reclamation, and the use of explosives. (*Soil Conservation*—Ayres.)

MR. NUTT

AG. ENGR. 51 & 52—INTRODUCTION TO RESEARCH AND THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To teach the student how to attack and solve a research problem. *Principal Topics:* A suitable problem is assigned each student. The results of the study are presented in thesis form.

MR. NUTT

MR. JONES

## AGRONOMY

MR. COOPER

MR. COLLINGS

MR. PATRICK

MR. LIPSCOMB

MR. JONES

AGR. 11—FIELD CROPS—*Semester 1* (3 and 0) 3 cr.

*Purpose:* To give the student a fundamental course in general field crops. *Principal Topics:* Origin, history, botanical characteristics, physiology, ecology, varieties, breeding, soil adaptation, fertilizer requirements of the most important crops of the United States and the cultural methods employed in their production. (*Production of Field Crops*—Huchinson, Wolfe and Kipps.)

MR. COLLINGS

MR. LIPSCOMB

AGR. 20—SOILS—*Semester 2* (2 and 2) 2 2/3 cr.

*Purpose:* To give the student a fundamental course in soils. *Principal Topics:* Basic principles of soil physics, soil fertility, soil biology, and soil management. The study deals with the soil as a reservoir for water; a medium for root development, a source of nutrients, and a home of organisms. (*The Nature and Properties of Soils*—Lyon and Buckman.)

MR. COLLINGS

MR. JONES

AGR. 31—FERTILIZERS AND MANURES—*Semester 1* (2 and 0) 2 cr.*Prerequisite:* Agr. 20.

*Purpose:* To give the student a thorough knowledge of the sources, characteristics, and uses of fertilizers and manures. *Principal Topics:* Sources, mining and manufacturing, composition, physical characteristics, and use of fertilizers and manures. (*Commercial Fertilizers—Their Sources and Use*—Collings.)

MR. COLLINGS

AGR. 32—GENETICS—*Semester 2* (2 and 2) 2 2/3 cr.

*Purpose:* To instruct students in the basic principles of genetics. *Principal Topics:* Heredity and variation, laws of heredity, application of genetic principles of plant and animal improvement. (*Principles of Genetics*—Sinnott and Dunn.)

MR. COOPER

MR. LIPSCOMB

MR. JONES



## AGR. 33—FORAGE CROPS—Semester I (3 and 0) 3 cr.

*Prerequisite:* Agr. II.

*Purpose:* To give the student a thorough knowledge of the botanical characteristics, cultural practices employed, and utilization of the leading forage plants of the United States. *Principal Topics:* The origin and adaptation of forage crops, methods of production; treatment of pastures, meadows, etc., and an intensive study of the leading forage plants with special emphasis given to those adapted to South Carolina conditions. (*Forage Plants and Their Culture*—Piper; *Growing Pastures in the South*—Combs.)

MR. JONES

## AGR. 42—SOIL FERTILITY AND MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Agr. 20 and Agr. 31.

*Purpose:* A detailed study of soil composition and practices of soil management. *Principal Topics:* Composition of the soil, influence of crop rotations and fertilizers on soil productivity, influence of various methods of tillage on crop yields, and a general study of those factors essential for the practical utilization of South Carolina soils. (*Soil Management*—Bear.)

MR. COLLINGS

## AGR. 43—FARM PROBLEMS—Semester I (2 and 0) 2 cr.

*Purpose:* To familiarize the student with the practical problems confronted under various conditions that exist in different sections of South Carolina. *Principal Topics:* The problems to be taken from experiences of farmers, county agents, and specialists in adjusting farm practices to varying conditions of organization, soil types, and climate.

MR. PATRICK

## AGR. 44—ADVANCED SOIL LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Agr. 20.

*Purpose:* To develop laboratory technique and to make students proficient in making physical and chemical determinations of soils. *Principal Topics:* Mechanical analysis, determinations of volume weight, soil water, organic matter, nitrogen, phosphoric acid, and potash. (*Soil Characteristics*—Emerson.)

MR. COLLINGS

AGR. 45—CROP NUTRITION—Semester I (2 and 0) 2 cr.

*Prerequisite:* Agr. II.

*Purpose:* To give the student a comprehensive knowledge of the geographical distribution, soil and fertilizer requirements of important farm crops. *Principal Topics:* Economic importance and climatic requirements of various crops; important soil factors influencing crop production, and the nutrient requirements of crops. (*The Small Grains*—Carlton; and *The Corn Crop*—Montgomery.)

MR. COOPER

AGR. 47—ADVANCED CROP LABORATORY—Semester I (0 and 2) 2/3 cr.

*Purpose:* To give advanced students detailed information on important agronomic problems. *Principal Topics:* Experimental methods used in agronomy, morphological characters, classification, and yielding capacity of important varieties of various farm crops. (*Bulletins and Periodicals.*)

MR. LIPSCOMB

AGR. 49—PLANT BREEDING—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Agr. 32.

*Purpose:* To present the application of the basic principles of genetics in the improvement of crop plants. *Principal Topics:* Biometrical methods, field plat technique, modes of reproduction of plants and methods of improving various crop plants. (*Breeding Crop Plants*—Hayes and Garber.)

MR. LIPSCOMB

MR. JONES

AGR. 51—SEMINAR—Semester I (1 and 0) 1 cr.

*Purpose:* To consider agronomic topics of special interest in crop production. *Principal Topics:* Material occurring in current numbers of professional journals and bulletins.

MR. COOPER

AGR. 52—SEMINAR—Semester 2 (1 and 0) 1 cr.

*Purpose:* To give the student the latest published and unpublished information concerning recent developments in the field of soil science. *Principal Topics:* Topics taken from latest published bulletins, reports, and professional magazines.

MR. COLLINGS

AGR. 53—COTTON—Semester I (2 and 0) 2 cr.

*Prerequisite:* Agr. II.

*Purpose:* To give the student a thorough knowledge of all phases of cotton production. *Principal Topics:* History, morphology, physiology, varieties, methods of cultivation, fertilization, insect and disease control, breeding, harvesting and grading of American Upland cotton. (*The Production of Cotton*—Collings.)

MR. COLLINGS

AGR. 61, 62—INTRODUCTION TO RESEARCH AND THESIS—Semesters I and 2 (0 and 3) 1 cr.

*Purpose:* To teach the student how to attack and solve a research problem. *Principal Topics:* A suitable problem is assigned each student. The results of the study are presented in thesis form.

AGRONOMY STAFF

### ANIMAL HUSBANDRY

MR. STARKEY

MR. RITCHIE

A. H. 12—TYPES, BREEDS AND MARKET CLASSES OF LIVESTOCK—Semesters I and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the agricultural students a knowledge of the characteristics and uses of farm animals. *Principal Topics:* Types, breeds, and market classes of beef cattle, horses, mules, sheep, and swine. In laboratory, the judging of farm animals is given considerable emphasis. (*Types and Market Classes of Livestock*—Vaughan.)

MR. RITCHIE

A. H. 31—FEEDS AND FEEDING—Semester I (3 and 0) 3 cr.

*Prerequisite:* A. H. 12 and Chemistry 21.

*Purposes:* To give the student an understanding of the principles of feeding farm animals. *Principal Topics:* A study of nutrients, digestion, metabolism of feed stuffs, nutritive ratios, feeding standards, and the balancing of rations. (*Feeds and Feeding*—Henry and Morrison.)

MR. MORGAN

A. H. 33—JUDGING—Semester I (0 and 2) 2/3 cr.

*Prerequisite:* A. H. 12.

*Purpose:* To give advanced students an opportunity to become more proficient in judging livestock. *Principal Topics:* Judging cattle, horses, mules, sheep and swine. Classes of livestock are studied and placed, and reasons given for the placings.

MR. STARKEY      MR. RITCHIE

A. H. 34—PORK PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the students a thorough knowledge of the fundamentals of pork production. *Principal Topics:* Feeding and management of hogs at different weights and ages. Forage crops, protein supplements, preparation of feeds, methods of feeding, relative value of feeds, summer and winter management, buying, and selling. (*Pork Production*—Smith.)

MR. STARKEY

A. H. 35—FARM MEATS—Semester I (0 and 6) 2 cr.

*Prerequisite:* A. H. 12.

*Purpose:* The proper selection and killing of meat animals and the cutting and curing of farm meats. *Principal Topics:* Production, selection, slaughtering, cutting, curing, judging, and consumption of farm meats. (*Meat and Meat Products*—Tomhave.)

MR. RITCHIE

A. H. 40—ANIMAL BREEDING—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Dairy 32 or Agronomy 32.

*Purpose:* To give the student an understanding of the fundamental principles relative to the breeding and improvement of livestock. *Principal Topics:* Variation, heredity, selection, linebreeding, in-breeding, cross-breeding, breed analysis, and other correlated subjects. (*Breeding and Improvement of Farm Animals*—Rice.)

MR. STARKEY



A. H. 41—ADVANCED FEEDS AND FEEDING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the student a knowledge of the relative values of the different feeds used in livestock production, to study the nutrient requirements of the different classes of livestock, to become familiar with the digestible nutrients in our most common feeds, and to balance rations for all classes of livestock. (*Feeds and Feeding*—Henry and Morrison.)

MR. STARKEY

A. H. 42—HORSE AND SHEEP PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the students training relative to the feeding and management of horses and sheep. *Principal Topics:* Feeding, breeding, management, judging, shearing, blocking, and sanitation. (*Productive Sheep Husbandry*—Coffey.)

MR. STARKEY

A. H. 43—BEEF PRODUCTION—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To familiarize the student with the principles of breeding, feeding, and management of beef cattle in the United States and foreign countries. *Principal Topics:* Early history of beef production, beef production in foreign countries, relation of beef production to general farming, most profitable feeds for beef production, methods of breeding to improve beef cattle, management of the purebred herd. (*Beef Production*—Snapp.)

MR. STARKEY

A. H. 52—SEMINAR—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To teach the student how to make use of the library and to keep informed concerning the latest findings of the experiment stations. *Principal Topics:* Timely topics are selected which have a bearing on the work which is being conducted at the various experiment stations. Each student summarizes the data on his particular problem and presents it to the group taking the course.

MR. STARKEY

## ARCHITECTURE

MR. LEE

MR. ANDERSON

MR. FITZPATRICK

MR. HODGE

ARCH. 11, 12—ELEMENTS OF ARCHITECTURE—Semester 1 (0 and 6)  
2 cr. Semester 2 (0 and 4) 1 1/3 cr.

*Purpose:* To give the beginner in Architecture an accurate picture of the profession he has elected, and basic training in drafting and design. *Principal Topics:* Exercises in proper drafting methods. An understanding of the use of the orders in architecture. The design, planning and construction drawings of a small building. Training in presentation of work. Lectures on the duties of an architect.

MR. FITZPATRICK

ARCH. 13, 14—FREEHAND DRAWING—Semesters 1 and 2 (0 and 4)  
1 1/3 cr.

*Purpose:* To give the student a thorough working knowledge of the principles of both angular and parallel perspective—the perspective of circles and shading. *Principal Topics:* Study of mass, form, proportion, and value with the mediums of pencil and charcoal. A sketching technique is stressed.

MR. HODGE

ARCH. 15—DESCRIPTIVE GEOMETRY—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To develop the powers of visualization and imagination. *Principal Topics:* Points, lines, planes, intersections, and sections. Solutions on drafting board. (*Practical Descriptive Geometry*—D. A. Low.)

MR. FITZPATRICK

ARCH. 16—SHADES AND SHADOWS AND PERSPECTIVE—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Architecture 15.

*Purpose:* To create in the student's mind correct form and proportion by application of conventional shades, shadows, and principles of perspective. *Principal Topics:* Drafting board practice in casting of Shades and Shadows on architectural forms and principles of architectural perspective. (*Shades and Shadows for Architects*—Euck, Ronan and Oman.)

MR. FITZPATRICK

ARCH. 21—ARCHITECTURAL DESIGN—Semester 1 (0 and 14) 4 2/3 cr.

*Prerequisite:* Arch 12, 14, 15, 16.

*Purpose:* To introduce the student by means of analytical problems to the basic principles of design inherent in the smaller elements of architecture. *Principal Topics:* Proportions; relative values of three dimensional mass; relation of lesser elements and decorative detail to the larger forms, in respect to mass and pattern; design of windows, doors, porticoes, arches; the Orders, together with analysis of detail of mouldings, carried out in rendered problems of from two to five weeks duration. Rendering: building out of masses, focus of attention.

MR. ANDERSON

ARCH. 22—ARCHITECTURAL DESIGN—Semester 2 (0 and 14) 4 2/3 cr.

*Prerequisite:* Arch. 21.

*Purpose:* Continuation of Arch. 21, with a gradual working toward small problems in planning in preparation for Arch. 31. *Principal Topics:* Continuation of Arch. 21; planning as a problem in three dimensional space; elementary exercises in spatial requirements of windows, doors, stairs, roofs, bath rooms, closets, fireplaces, etc., carried out in rendered problems of from two to five weeks duration.

MR. ANDERSON

ARCH. 23, 24—ANTIQUE AND COLOR—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 14.

*Purpose:* To give a thorough drill in the drawing of simple casts of architectural fragments, parts of the figure, and still life groups. *Principal Topics:* Elements of decorative composition, still life groups in monochrome and color. Outdoor sketching—sketching in water-color, pastel, and charcoal.

MR. HODGE

ARCH. 23.5, 24.5—DECORATIVE DESIGN AND COLOR—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 14.

*Purpose:* To give the student majoring in Weaving and Designing the fundamentals of form, shade, and color underlying the design of decorative textiles. *Principal Topics:* Pencil sketching, charcoal drawing

from models, casts and nature, adaptation of natural and conventional forms to decorative design as applied to textile fabrics, study of color in theory and practice, and water-color renderings.

MR. HODGE

ARCH. 25—HISTORY OF ARCHITECTURE—Semester 1 (4 and 0) 4 cr.

*Purpose:* To acquaint the student with the development of architecture, from prehistoric to mediaeval time, as a problem both of construction and aesthetics. *Principal Topics:* Influence of various geographic, geological, social, and psychological factors; structural problems and their solution, post and lintel, arch, vault, pendentive, dome; planning problems and their solution; temples, churches, public buildings; decorative problems and their solution, as revealed in the buildings of the Egyptian, Greek, Roman, Early Christian, Byzantine, and Romanesque periods.

MR. ANDERSON

ARCH. 25.5—ARCHITECTURE OF ANTIQUE AND EARLY CHRISTIAN CIVILIZATIONS—Semester 1 (2 and 0) 2 cr.

*Purpose:* An elective course to present, as cultural background, a brief, non-technical synopsis of architecture as it developed in the earlier civilizations of Western Europe. *Principal Topics:* While in general this course covers the material of Arch. 25, the lectures will be less concentrated and will be given from the lay rather than the architectural point of view. Emphasis will be placed not on specific buildings, but on types of buildings evolved by the different civilizations. Architecture in the Egyptian, Greek, Roman, and Early Christian civilizations.

MR. ANDERSON

ARCH. 26—HISTORY OF ARCHITECTURE—Semester 2 (4 and 0) 4 cr.

*Prerequisite:* Arch. 25.

*Purpose:* To acquaint the student with the development of architecture, from mediaeval to modern time, as a problem both of construction and aesthetics. *Principal Topics:* Influence of various geographic, geological, social, and psychological factors; the spread of the Romanesque system of building through Western Europe, and its crystallization in Gothic architecture; the revival of Classic form in Italy during the Renaissance; the spread of the Renaissance into France and England; nineteenth century eclecticism, and the beginnings of modern architecture.

MR. ANDERSON



ARCH. 26.5—ARCHITECTURE OF MEDIAEVAL AND RENAISSANCE CIVILIZATIONS—Semester 2 (2 and 0) 2 cr.

*Purpose:* An elective course to present, as cultural background, a brief, non-technical synopsis of architecture as it developed in the later civilizations of Western Europe. *Principal Topics:* Architecture of the mediaeval and renaissance civilizations of Italy, France and England. No prerequisite is required, but inasmuch as the forms of both mediaeval and renaissance architecture are either wholly or in part rooted in earlier developments, the first half-dozen lectures will be devoted to these before proceeding with the material of the course.

MR. ANDERSON

ARCH. 28—SUMMER WORK—6 Weeks.

*Purpose:* To give the student an insight into the practical side of the profession, a better appreciation of the objectives in his college work and to enable him to secure better employment upon graduation. *Principal Topics:* Any duties connected with an architect's office or on construction work with a contractor, or making measured drawings of some building of good architectural character approved by the faculty of architecture. The student is expected to do this without remuneration if necessary.

ARCH. 31, 32—ARCHITECTURAL DESIGN—Semesters 1 and 2 (0 and 22) 7 1/3 cr.

*Prerequisite:* Arch. 22.

*Purpose:* To acquaint the student with problems involving planning, elevation, and mass composition in all styles of architecture. *Principal Topics:* The formal plan problem of public buildings; studies in entourage, elements of landscape architecture with relation to plan and elevation, interior architecture, indication, and presentation. The esquisse-esquisse.

MR. FITZPATRICK

MR. ANDERSON

ARCH. 31a—THEORY OF ARCHITECTURE—Semester 1—(Given jointly as part of Arch. 31.)

*Prerequisite:* Registration in Architecture 31.

*Purpose:* An open period where all topics relating to architecture are brought up for discussion. Seminar. *Principal Topics:* Formal discussion of the theory of design; axial relationships, mosaic, circulation, requirements of type buildings; informal discussion of new theories of design and style; competitions and exhibitions.

MR. FITZPATRICK

ARCH. 33, 34—CAST DRAWING—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 24.

*Purpose:* An advanced course in the representation of antique sculpture to show the elements of anatomy and its relation to form. *Principal Topics:* Drawing from casts with a choice of mediums such as charcoal, conte, pastel, etc.; outdoor sketching in pencil and water-color.

MR. HODGE

ARCH. 33.5—DECORATIVE DESIGN AND COMPOSITION—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Arch. 24.5.

*Purpose:* To give the student majoring in Weaving and Designing advanced training in the composition of textile patterns. *Principal Topics:* Composition of border patterns; geometric bases for all-over repeating designs; designing for damasks, brocades, tapestries, rugs, etc.

MR. HODGE

ARCH. 35, 36—BUILDING CONSTRUCTION—Semester 1 (3 and 0) 3 cr.  
Semester 2 (2 and 0) 2 cr.

*Purpose:* To give the student a knowledge of the materials used in the construction of a frame building, their qualities and uses. *Principal Topics:* Growth of wood, house framing, roofing, door and window details, flooring, plastering, interior and exterior finish, painting, chimney construction, hardware, estimating, specification writing, problems in calculation. (*Materials and Methods of Architectural Construction*—Gay and Parker.)

MR. LEE

ARCH. 37, 38—WORKING DRAWINGS—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Prerequisite:* Architecture 32.

*Purpose:* The student is required to make complete working drawings of a frame building just as the practicing architect does in his office. *Principal Topics:* Scale drawings of plan of each floor, foundation and roof; elevation of each side of building; large scale details of framing, doors, windows, trim, stairs, cornice, roof and chimney; calculations; tracing, blueprinting.

MR. LEE

ARCH. 39—HISTORIC ORNAMENT—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Arch. 22, 24, 26.

*Purpose:* To acquaint the student with the development, from pre-historic to modern time, of architectural ornament. *Principal Topics:* Carved and painted ornament; mosaic pavements; painted wall decoration; stained glass, a decoration of vaults and ceilings; interior decoration; as developed in Egyptian, Greek, Roman, Mediaeval, and Renaissance architecture. After a brief analysis of each phase, the student is required to submit a small rendered plate of the particular ornament under consideration.

MR. ANDERSON

ARCH. 40, 49—LIFE DRAWING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Prerequisite:* Arch. 34.

*Purpose:* To acquaint the student with the proportion and anatomy of the nude and draped figure. Designed primarily for architectural students. *Principal Topics:* Quick sketches of the nude for action and movement. Longer studies of the nude and draped figure for tone values, composition, and light effects. Charcoal as a medium.

MR. HODGE

ARCH. 40.5—HISTORY OF PAINTING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Junior or Senior Standing.

*Purpose:* Stressing the appreciation of painting through the various national styles. *Principal Topics:* Pre-historic painting; Egyptian and Greek painting; the Renaissance in Italy, the Netherlands, and France; the German, Spanish, English, and American schools; the International style and abstract art; illustrated with slides and mounted reproductions. (*University Prints.*)

MR. FITZPATRICK

ARCH. 41, 42—ARCHITECTURAL DESIGN—Semester 1 (0 and 20) 6 2/3 cr. Semester 2 (0 and 21) 7 cr.

*Prerequisite:* Arch. 32.

*Purpose:* To present architectural problems of an advanced nature. *Principal Topics:* The complex plan, multi-storied elevation, elements of

civic planning, advanced archaeology problems, the esquisse-esquisse, advanced landscape architecture.

MR. ANDERSON

ARCH. 41.5—ART APPRECIATION—Semester 1 (2 and 0) 2 cr.

(For students in Industrial Education—Elective).

*Purpose:* To cultivate in the student an artistic taste and to direct and instruct it by bringing him in contact with the best examples. *Principal Topics:* Periods and styles of architecture, painting, sculpture, furniture, ornament, decorative and interior composition, given by lectures and lantern slides.

STAFF

ARCH. 42.5—INDUSTRIAL DESIGN—Semester 2 (0 and 2) 2/3 cr.

(For students in Industrial Education).

*Prerequisite:* Drawing 12 and 14, Architecture 41.5.

*Purpose:* To give the students the fundamentals in design of simple pieces of furniture as worked out on the drafting table. *Principal Topics:* Working detail drawings of chairs, tables, metal work, etc.

MR. LEE

ARCH. 43, 44—BUILDING CONSTRUCTION—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Arch. 36.

*Purpose:* To give the student a working knowledge of the nature, quality, and uses of materials in a masonry building. *Principal Topics:* Foundations, mortars, details of masonry construction, steel, concrete, fireproof construction, estimates, specifications, superintendence, calculations.

MR. LEE

ARCH. 45, 46—STRUCTURAL DESIGN—Semester 1 (0 and 6) 2 cr. Semester 2 (0 and 8) 2 2/3 cr.

*Prerequisite:* Architecture 38.

*Purpose:* To train the student to make working drawings of a masonry building with specifications, including mechanical plant, as usually



prepared in the practicing architect's office. *Principal Topics:* Scale drawings of all floor plans and elevations, cross sections; large scale details of all parts of the construction with necessary calculations; specification writing, estimating; completed documents are to be in approved shape so that they may be submitted to a contractor for a bid.

MR. LEE

ARCH. 47—MECHANICAL PLANT—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Architecture 38.

*Purpose:* To familiarize the student with the design and requirements of heating, lighting and sanitary systems in a building. *Principal Topics:* Hot air, hot water, and steam systems of heating; ventilation, electric lighting, plumbing for supply and drainage. Layout of these systems is required on drawings made in Architecture 38 or 45.

MR. LEE

ARCH. 48—PROFESSIONAL PRACTICE—Semester 2 (1 and 0) 1 cr.

(For seniors in Architecture only).

*Purpose:* To familiarize the student with methods of practice of architecture and inculcate in him the high ethical ideals of the profession. *Principal Topics:* Office management and organization, laws, codes, contracts, ethics, competitions; documents of the American Institute of Architects are studied.

MR. LEE

ARCH. 51, 52—ADVANCED ARCHITECTURAL DESIGN—Semesters 1 and 2 (credits to be arranged with instructor).

*Prerequisite:* Arch. 42.

*Purpose:* A continuation of Arch. 42 with more advanced work, as an elective to advanced students having the prerequisite. *Principal Topics:* The student writes his own program of the project. Scheduled criticism periods and personal presentation to the architectural faculty for judgment at the end of each semester.

MR. FITZPATRICK

ARCH. 53—MODELING—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Arch. 12, 14, 15, 16.

*Purpose:* To give the student studies in three dimensional representation in a plastic medium. *Principal Topics:* Bas-relief plaques, the human figure in relief and in the round, decorative compositions in bas-relief and in the round, advanced anatomy of the human figure, and animal forms.

MR. HODGE

## BACTERIOLOGY

MR. AULL

BACT. 31—GENERAL BACTERIOLOGY—Semester 1 (2 and 4)  $3\frac{1}{3}$  cr.

*Prerequisite:* Botany 13 and 14, Chemistry 11 and 12. (*Suggested:* Chemistry 21, or Chemistry 25 and 26.)

*Purpose:* To give the student a clear working knowledge of the fundamentals of bacteriology. *Principal Topics:* Morphology, classification, distribution, cultivation, observation, and physiology of microorganisms; effects of organisms on their environment; microorganisms and health. (*Bacteriology*—Tanner; *Laboratory Technique in Bacteriology*—Levine.)

MR. AULL

BACT. 40—DAIRY BACTERIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Bacteriology 31.

*Purpose:* To give the student a detailed knowledge of bacteriology in its relation to the dairy industry. *Principal Topics:* Bacterial counts on milk, milk fermentations, contamination of milk and cream, reducing the contamination of milk, growth of microorganisms in milk and cream, body cells in milk, spread of diseases through milk and its derivatives; preservation of milk and cream, milk enzymes, bacteriology of prepared milks, ice cream, butter cultures, fermented milks, butter, cheese, tests for the quality of milk and cream. (*Dairy Bacteriology*—Hammer; *Standard Methods of Milk Analysis and Mimeographed Notes*.)

MR. AULL

BACT. 42—SANITARY BACTERIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Chemistry 11 and 12.

*Suggested:* Botany 13 or 14 and Organic Chemistry.

*Purpose:* This course is designed primarily for Engineering students. After a consideration of the fundamentals of bacteriology, the course is designed to give a knowledge of the relation of bacteriology to water purification and sewage disposal. *Principal Topics:* Morphology, classification, physiology, and cultivation of microorganisms; the bacteria in natural waters, the location and protection of water supplies, water borne diseases, algae and their relation to water supplies, the Colon-Typhoid group of bacteria, the bacteriological examination of water and sewage, the purification of water, operation of control laboratories, bacteriological control of swimming pools, the bacteriology of sewage and sewage effluents and methods of sewage disposal. (*Elements of Water Bacteriology*—Prescott & Winslow; *Water Purification Control*—Hopkins; *Lectures and Technical Papers*; *Standard Methods for the Examination of Water and Sewage of the A. P. H. A.* and *Mimeographed Notes.*)

MR. AULL

BACT. 44—SOIL MICROBIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Bacteriology 31.

*Purpose:* To give the student accurate knowledge of the importance of microorganisms in the maintenance of soil fertility. *Principal Topics:* The soil and the plant, the microbe and its activities, the soil population, the role of microbes in the decomposition of organic substances, transformation of nitrogen, transformation of mineral substances in soil by the action of microorganisms, interrelationships between higher plants and soil microorganisms, modification of the soil population, importance of microbes in soil fertility. (*Principles of Soil Microbiology*—Waksman.)

MR. AULL

## BOTANY

MR. ARMSTRONG

MR. ROSENKRANS

MR. RICE

MR. MACLACHLAN

BOT. 11—GENERAL BOTANY—Semester 1 (2 and 4) 3 1/3 cr.

*Purpose:* To give a general survey of the principles manifest in the life of plants. *Principal Topics:* The first part of the semester is de-

voted to a study of the form, structure, and physiology of the higher plants, followed by a study of algae, bacteria, fungi, liverworts, mosses, and ferns, with the application of the biological laws. Descriptions, life histories and adaptation of the representative organisms are considered. This course is designed for General Science students.

MR. ROSENKRANS      MR. RICE      MR. MACLACHLAN

BOT. 13—AGRICULTURAL BOTANY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the students knowledge of the different plant organs and their uses. *Principal Topics:* The structure and functions of the various parts of the higher seed plants and the broad principles of metabolism, growth, and reproduction are first taken up, followed by a study of the lower organisms.

MR. ROSENKRANS      MR. RICE      MR. MACLACHLAN

BOT. 14—AGRICULTURAL BOTANY—Semester 2 (2 and 4) 3 1/3 cr.

A continuation of course 13, dealing with the changes in form, structure, and methods of reproduction from the lower to the higher forms of plants. The latter part of the semester is devoted to practice work in plant identification. (*Field, Forest, and Garden Botany*—Gray.)

MR. ROSENKRANS      MR. RICE      MR. MACLACHLAN

BOT. 16—GENERAL BOTANY—Semester 2 (2 and 4) 3 1/3 cr.

*Purpose:* To make the students familiar with the application of biological laws; and descriptions, life, histories and adaptations of representative organisms. *Principal Topics:* The structure and functions of the various parts of the higher seed plants, and the broad principles of metabolism, growth, and reproduction are first discussed, followed by a study of the lower organisms. The practical work will consist of laboratory studies illustrating the more important phases of the theoretical work. This course is designed for students in Agricultural Education.

MR. ROSENKRANS      MR. RICE      MR. MACLACHLAN

BOT. 30—PLANT PHYSIOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Botany 11 or 13; one year of Chemistry, and one semester of Physics.

*Purpose:* To study all the relations and processes which have to do with the maintenance, growth, and reproduction of plants. *Principal*



*Topics:* Absorption of matter and energy, water relations of the plant, utilization of reserve products and liberation of energy, growth, movement, and reproduction.

MR. ARMSTRONG

BOT. 41—FIELD CROP DISEASES—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14; suggested Botany 30.

*Purpose:* To give a knowledge of the common field crop diseases and methods for their control. *Principal Topics:* Historical background, fungicides, insects as disseminators of disease, types of organisms causing disease, symptoms, effect upon host plants, and control of the common field crop diseases.

MR. ARMSTRONG

BOT. 43—ORCHARD AND TRUCK CROP DISEASES—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14; suggested Botany 30.

*Purpose:* To study the diseases of fruits and vegetables, and methods for their control. *Principal Topics:* Historical background, fungicides, insects as disseminators of disease, symptoms, effect upon host plants, and control of diseases of fruits and vegetables. (*Manual of Vegetable Garden Diseases*—Chupp; *Manual of Fruit Diseases*—Hesler and Whetzel.)

MR. ARMSTRONG

BOT. 45—PLANT PATHOLOGY—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14 or 16.

*Purpose:* To acquaint the student with the major plant diseases of the South. *Principal Topics:* Plant diseases, symptoms of the diseases, the nature of the causal agencies or factors, and methods of control. (*Introduction to Plant Pathology*—Heald.)

MR. MACLACHLAN

BOT. 101—MORPHOLOGY OF THE FUNGI—Semester I (2 and 2) 2 2/3 cr. (Hours to be arranged.)

*Prerequisite:* Botany 13 and 14.

A study of the morphology and taxonomy of the fungi with practice in pure culture isolation and growth of parasitic forms.

MR. ARMSTRONG

## CHEMISTRY

\*MR. BRACKETT

|                |               |             |
|----------------|---------------|-------------|
| MR. LIPPINCOTT | MR. MITCHELL  | MR. POLLARD |
| MR. HUNTER     | MR. CARODEMOS | MR. ZURBURG |
| MR. HODGES     | MR. GEE       | MR. HAWKINS |

CHEM. 11, 12—GENERAL CHEMISTRY—Semesters 1 and 2 (3 and 2) 3 2/3 cr.

*Purpose:* To give the student a general knowledge of the fundamentals of the science of chemistry, through lectures, lecture experiments, and laboratory exercises. *Principal Topics:* A consideration of the basic laws of chemistry and a study of the preparation and properties of the common substances. (*An Introduction to College Chemistry*—Briscoe; *Laboratory Manual, Exercises in General Chemistry*—Hunter.)

MR. HUNTER      MR. ZURBURG

CHEM. 13, 14—GENERAL CHEMISTRY—Semesters 1 and 2 (3 and 3) 4 cr.

*Purpose:* This course is limited to students majoring in chemistry, textile chemistry, or chemistry-engineering. The subject matter is taken up in more detail than in Chemistry 11 and 12 and the additional hour of laboratory work enables the performance of more laboratory experiments. (*An Introduction to College Chemistry*—Briscoe; *Laboratory Manual, Exercises in General Chemistry*—Hunter.)

MR. HUNTER      MR. ZURBURG

CHEM. 21, 22—ORGANIC CHEMISTRY—Semesters 1 and 2 (2 and 3) 3 cr.

*Prerequisite:* Chemistry 11, 12.

*Purpose:* To promote a thorough understanding of the fundamentals of plant and animal biochemistry. *Principal Topics:* Emphasis is placed on nomenclature, properties, preparation, reaction and uses of radicals and compounds of organic substances which are known to give rise to understanding of plant and animal biochemistry. A thorough study of carbohydrates, fats, proteins, pigments, vitamins, essential oils and associated substances of plant and animal origin. (*Organic Chemistry*—Richter;

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\*Deceased.

*Laboratory Manual: Laboratory Practices of Organic Chemistry*—Williams and Brewster.)

MR. GEE

CHEM. 21a—ORGANIC CHEMISTRY—Semester I (2 and 6) 2 cr.

*Purpose:* To acquaint the students in Vocational Agricultural Education with the principals of carbon chemistry. *Principal Topics:* The scope of study includes generalized properties and characteristics of organic substances of value to students preparing to teach Vocational Agriculture. (*Introduction to Organic Chemistry*—Garard.)

MR. GEE

CHEM. 23—QUALITATIVE ANALYSIS—Semester I (2 and 8) 4 2/3 cr.

*Prerequisite:* Chemistry 11, 12.

*Purpose:* To emphasize the principles involved in chemical analysis, to broaden the student's knowledge of inorganic chemistry, to develop deductive reasoning power, and to give practice in manipulation. *Principal Topics:* Solutions and ionization; mass action and the law of chemical equilibrium; solubility product principle; hydrolysis, amphoterism, complex ions; gaseous-liquid and liquid-liquid systems; reactions and equations. The laboratory work consists of analysis of unknown salt mixtures, industrial products, and alloys. (*Qualitative Analysis*—Engelder.)

MR. LIPPINCOTT

CHEM. 24—QUANTITATIVE ANALYSIS—Semester 2 (2 and 8) 4 2/3 cr.

*Prerequisite:* Chemistry 11, 12.

*Purpose:* To give training for the more advanced work; the time is spent on simple quantitative analyses, both volumetric and gravimetric, which are typical of the subdivisions of the subject. *Principal Topics:* Volumetric analysis; gravimetric analysis; concentration of solutions, acidimetry and alkalimetry; oxidation and reduction, iodimetry; theory of electrolysis, assaying, stoichiometry. The laboratory work consists of the preparation of decinormal solutions; analysis of soda ash, sulphate, chloride, pyrolusite, iron ore, bleaching powder, silver coin, and limestone. (*Quantitative Analysis*—Engelder; *Laboratory Manual of Introductory Quantitative Analysis*—Nichols.)

MR. LIPPINCOTT

CHEM. 25—ORGANIC CHEMISTRY—Semester 1 (3 and 6) 5 cr.

*Prerequisite:* Chemistry 11, 12.

*Purpose:* This is an extensive course in which the general principles of organic chemistry and the properties of important compounds receive thorough discussion. *Principal Topics:* Hydrocarbons of the methane, ethylene and acetylene series; saturated, unsaturated and polyhydroxy alcohols; monobasic and polybasic acids; ethers, anhydrides and esters; aldehydes and ketones; amines and amides; cyanogen and related compounds; halogen compounds; compounds containing two unlike substituents; carbohydrates; compounds containing phosphorous, arsenic, sulphur, and metals. (*The Chemistry of Organic Compounds*—Conant; *Laboratory Experiments in Organic Chemistry*—Adams and Johnson.)

MR. CARODEMOS

CHEM. 26—ORGANIC CHEMISTRY—Semester 2 (3 and 6) 5 cr.

*Prerequisite:* Chemistry 25.

*Purpose:* Same as Chemistry 25. *Principal Topics:* The identification of organic compounds and the determination of their structure; uric acid and related compounds; cyclic hydrocarbons; determination of the structure of aromatic compounds; nitro compounds and sulphonic acids; aromatic amines, nitro compounds and sulphonic acids; aromatic phenols, ethers, acids, aldehydes and ketones; aromatic compounds containing two unlike substituents. (*The Chemistry of Organic Compounds*—Conant; *Laboratory Experiments in Organic Chemistry*—Adams and Johnson.)

MR. CARODEMOS

CHEM. 31, 32—PHYSICAL CHEMISTRY—Semesters 1 and 2 (3 and 4) 4 1/3 cr.

*Prerequisite:* Chemistry 11, 12; Chemistry 22 or 24; *Suggested:* Organic Chemistry; Calculus.

*Purpose:* The systematic presentation of modern chemical theories of matter, solutions, and reactions. *Principal Topics:* Gases, liquids, and solids; atomic structure; thermochemistry, theory of solutions; chemical kinetics; equilibrium in homogeneous and heterogeneous systems; the Phase Rule; elementary electro-chemistry. Laboratory determinations of physico-chemical properties and laboratory studies of the topics listed. (*Outlines of Theoretical Chemistry*—Getman and Daniels. *Laboratory Manual, Exercises in Physical Chemistry*—Pollard.)

MR. POLLARD



CHEM. 31a, 32a—PHYSICAL CHEMISTRY—Semesters 1 and 2 (3 and 0)  
3 cr.

Same course as Chem. 31, 32 without laboratory work.

MR. POLLARD

CHEM. 33, 33a—QUANTITATIVE ANALYSIS—Semesters 1 and 2 (1 and 3)  
2 cr.

*Prerequisite:* Chemistry 24.

*Purpose:* To give further training and experience in quantitative chemical analysis through lectures and laboratory work. This course involves both gravimetric and volumetric analysis. *Principal Topics:* Complete analysis of clays, silicates, a partial analysis of coal, pig iron, and steel. Volumetric analysis includes the determination of arsenic, copper, and lead in insecticides. Quantitative analysis of alloys, including some quantitative electrometric separations. (*Quantitative Analysis*—Mahin.)

MR. MITCHELL

CHEM. 34—DAIRY CHEMISTRY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Chemistry 21, 22; *Suggested:* Chemistry 23, 24.

*Purpose:* A study of Chemistry in its relation to the dairy industry. *Principal Topics:* Acquainting the student with the manipulation of apparatus found in the modern dairy laboratory; analyses of milk and dairy products; detection of adulterants, preservatives, colors, and causes of spoilage of dairy products. (References.)

MR. CARODEMOS

CHEM. 35, 36—THE CARBON COMPOUNDS—Semesters 1 and 2 (2 and 3)  
3 cr.

*Prerequisite:* Chemistry 26.

*Purpose:* To review and study more intensively representative classes of organic compounds, and to survey available methods for establishing the structure and configuration of organic molecules. In the laboratory the methods of organic synthesis and analysis are studied. (*Organic Chemistry*—Whitmore; *Practical Methods of Organic Chemistry*—Gattermann.)

MR. CARODEMOS

CHEM. 37, 38—GENERAL BIOCHEMISTRY—Semesters 1 and 2 (2 and 0)  
2 cr.

*Prerequisite:* Chemistry 23, 24, 25; *Suggested:* Chemistry 31.

*Purpose:* To give a comprehensive outlook and an acquaintance with the broader aspects of biochemistry. This course is of particular value to the pre-medical, pre-dental, and agricultural student. (*Outlines of Biochemistry*—Gortner.)

MR. CARODEMOS

CHEM. 41, 42—INORGANIC CHEMISTRY—Semesters 1 and 2 (2 and 0)  
2 cr.

*Prerequisite:* Chemistry 11, 12; *Suggested:* Chemistry 31, 32.

*Purpose:* A comprehensive survey of the field of inorganic chemistry through lectures and lecture experiments. *Principal Topics:* Development of modern theories of valence and allied subjects and a detailed study of the elements and their compounds, based on the periodic system and including both well-known and rarer elements. (*Systematic Inorganic Chemistry*—Caven and Lander.)

MR. HUNTER

CHEM. 43, 44—COLLOID CHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 31, 32.

*Purpose:* The general theory of colloid chemistry and its applications. *Principal Topics:* Adsorption, contract catalysis, surface tension, preparation, and properties of colloidal solutions, gelatinous precipitates and jellies, emulsions, foams, fog, smoke. (*Colloid Chemistry*—W. D. Bancroft.)

MR. POLLARD

CHEM. 45—HISTORY OF CHEMISTRY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 25, 26.

*Principal Topics:* A study of the development of the science of chemistry from the earliest times to the present day. (*History of Chemistry*—J. R. Partington.)

MR. POLLARD

CHEM. 46—STOICHIOMETRY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Chemistry II, 12.

*Purpose:* To study various types of fundamental problems in chemistry through lectures and classroom work. *Principal Topics:* Balancing equations, principally oxidation and reduction reactions, gas law problems, atomic and molecular weights; factors; electrochemical problems; standard solutions; problems dealing with indirect analysis; calculations involving the elimination or introduction of a constituent; acidimetry and alkalinity; adjusting solutions to a desired normality and oxidation and reduction problems. (*Calculations of Quantitative Chemical Analysis*—Hamilton and Simpson.)

MR. MITCHELL

CHEM. 47—TECHNICAL ANALYSIS—Semester I (1 and 6) 3 cr.

*Prerequisite:* Chemistry 24 or 33.

*Purpose:* To study the chemical principles involved, and give training and experience in the analysis of a great many industrial products. Special attention is given to the standard, accurate methods. *Principal Topics:* Fertilizer analysis, organic and mineral analysis of feeding materials; complete water analysis, both mineral and sanitary; the analysis of sugar products, special attention being given to the use of the polariscope in this work. (Methods of the Association of Official Agricultural Chemists.)

MR. MITCHELL

CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

CHEM. 53, 54—INDUSTRIAL CHEMISTRY—Semesters I and 2 (2 and 0) 2 cr.

*Prerequisite:* Junior or Senior standing. *Suggested:* Chem. 31, 32.

*Purpose:* To study processes, operations, and reactions of chemical manufacture as related to such industries as paper, glass, fertilizer, sugar,

leather, petroleum, etc. Visits are made to various plants and inspection reports made.

MR. ZURBURG

CHEM. 55, 56—ELEMENTARY CHEMICAL MICROSCOPY—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* Chemistry 23, 24, 25; Geology 33.

*Purpose:* To train the student in appreciating the value of the microscope in the industries. The microscope has come to be regarded as an indispensable adjunct in chemical-industrial operations in which economy of time, labor, and material is essential. *Principal Topics:* Theoretical consideration of the construction of optical instruments and their uses in chemical work. The laboratory work will include a study of the crystalline structure of common chemicals and their microscopic detection, determination of particle size and the solution of various practical industrial problems which can best be solved by the use of the microscope.

MR. HUNTER      MR. CARODEMOS

CHEM. 58—SENIOR PROBLEMS—Semester 2 (1 and 0) 1 cr.

*Prerequisite:* Senior standing in School of Chemistry

*Purpose:* The course in Senior Problems will be given somewhat in the manner of a seminar. *Principal Topics:* The staff of the School of Chemistry will meet each week with the seniors. Each senior will be given a certain definite problem to be worked out in connection with certain members of the staff, these problems to be reported on at the weekly meetings. Recent advances in chemistry and chemical literature will receive attention.

STAFF OF SCHOOL OF CHEMISTRY

### CIVIL ENGINEERING

MR. CLARKE

MR. GLENN

\*\*MR. QUATTLEBAUM

\*MR. STEVENSON

C. E. 21, 22—SURVEYING—Semester 1 (2 and 0) 2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math. 11, 12; Drawing 13, 14.

*Purpose:* To give the student considerable facility in the theory and use of modern surveying instruments and methods, in both field and office

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\*On Leave

\*\*In Place of Mr. Stevenson, on leave



work. *Principal Topics:* Survey of tract, computation of area; description by metes and bounds; U. S. Public Land Surveys; differential and profile leveling and plotting; topographic surveying and mapping. (*Davis, Foote and Rayner.*)

MR. CLARKE

C. E. 21a, 22a—SURVEYING FIELD AND OFFICE WORK—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Math. 11, 12; Drawing 13, 14.

*Purpose:* To put into practice the theoretical principles covered in C. E. 21, 22; which subject must be scheduled concurrently with this. The work during the first semester covers surveys of tracts for legal description and computation of area; differential and profile leveling and plotting. The work during the second semester covers topographic surveying and mapping. (*Davis, Foote and Rayner.*)

MR. CLARKE

C. E. 23—SURVEYING—Semester 1 or 2 (1 and 0) 1 cr.

*Prerequisite:* Math. 11, 12; Drawing 13, 14; Registration in C. E. 23a.

*Purpose:* To give students not majoring in Civil Engineering practice in making preliminary surveys for, and computing cost of, engineering projects. *Principal Topics:* The use of surveying instruments, maps, profiles, cross-sections, land measurement, earth-work computations, and road location. (*Elementary Surveying—Rayner.*)

MR. QUATTLEBAUM

C. E. 23a—SURVEYING FIELD AND OFFICE WORK—Semester 1 or 2 (0 and 2) 2/3 cr.

*Prerequisite:* Math. 11, 12; Drawing 13, 14; Registration in C. E. 23.

*Purpose:* To put into practice the theoretical principles covered in C. E. 23. (*Elementary Surveying—Rayner.*)

MR. QUATTLEBAUM

C. E. 27, 28—MATERIALS AND METHODS OF CONSTRUCTION—Semesters 1 and 2 (2 and 0) 2 cr.

*Purpose:* To familiarize the student with the common materials and technical terms used in construction, and the ways in which the materials

are used. *Principal Topics:* Foundations on soft soils; concrete, brick, and stone masonry; wood, steel, and reinforced concrete construction; floor and roof coverings; plastering and painting; and methods of cost-keeping. (*Building Construction*—Huntington.)

MR. CLARKE

C. E. 30—SUMMER SURVEYING CAMP

Between the Sophomore and Junior years, two weeks in June, at *Camp Clarke*, near Steedman, S. C. 3 credits.

*Prerequisite:* C. E. 21, 22.

*Purpose:* To give civil engineering students experience not only in camp organization and sanitation, but also in meeting field problems which arise in a rough country, several miles away from headquarters. *Principal Topics:* Reconnaissance, preliminary survey, and final location survey for a road between two selected termini, including plotting of map and profile. (See also C. E. 36.)

MR. CLARKE

C. E. 31—MECHANICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22. Physics 21, 22, 23, 24.

*Purpose:* To enable the student to combine his knowledge of mathematics and physics for computing and analyzing balanced forces acting on a point, a member, or a structure. The graphical method of solving problems in statics is also studied. *Principal Topics:* Components, resultants, reactions, moments of forces, center of gravity, moment of inertia. (*Applied Mechanics*—Poorman.)

MR. QUATTLEBAUM

C. E. 32—STRENGTH OF MATERIALS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* C. E. 31 or M. E. 31.

*Purpose:* To study the strength of brick, stone, concrete, wood, and steel under the action of tensile, compressive, flexural, and shearing stresses. The elastic theory is used throughout the course. *Principal Topics:* Compression, tension, shear, modulus of elasticity, riveted joints, beams columns, struts, slab. (*Strength of Materials*—Boyd.)

MR. QUATTLEBAUM

C. E. 34—GRAPHIC STATICS—Semester 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* C. E. 31.

*Purpose:* A study is made in this course of the most useful application of graphical analysis to stresses in structures. Stresses due to wind and dead weight on roof trusses are analyzed. The design for one roof truss is worked out in detail. *Principal Topics:* Types of roof trusses, wind loads, dead loads, Maxwell diagrams, string polygons, built up members, column formula. (*Stresses in Framed Structures*—Ketchum.)

MR. QUATTLEBAUM

C. E. 35—ROUTE SURVEYING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* C. E. 21, 22, 30.

*Purpose:* To familiarize the student with the special problems which arise in a survey for railroads, highways, canals, sewers, pipe lines, and transmission lines. *Principal Topics:* Theory of simple, compound, and reversed curves; transition spiral; railroad turnouts, computations of earthwork. (*Route Surveying*—Pickels and Wiley.)

MR. CLARKE

C. E. 36—ROADS AND PAVEMENTS—Semester 2 (3 and 3) 4 cr.

*Prerequisite:* C. E. 21, 22, 30, 35.

*Purpose:* A study of the design, location, and construction of roads and pavements. *Principal Topics:* Economics of highway construction, location and design. Study of factors relating to highway construction, methods, and materials.

The design period is devoted to the preparation of detailed plans for a highway, using the notes taken in C. E. 30 at the Sophomore Summer Camp. (*Highway Design and Construction*—Bruce.)

MR. GLENN

C. E. 37—STRESSES IN SIMPLE STRUCTURES—Semester 1 (0 and 4) 1 1/3 cr.

*Prerequisites:* Math. 21, 22; Physics 24, 26; Drawing 25, 28.

*Purpose:* The calculation of stresses in statically determinate structures. *Principal Topics:* This course covers the application of the prin-

ciples of mechanics as applied to the determination of stresses in roof trusses, bents, cranes, bridges and other simple structures. (*AISC Handbook of Steel Construction and Simple Steel Structures*—Morris.)

MR. QUATTLEBAUM

C. E. 38—DESIGN OF SIMPLE STRUCTURES—Semester 2 (0 and 6) 2 cr.

*Prerequisites:* Math. 21, 22; Physics 24, 26; Drawing 25, 28; C. E. 37.

*Purpose:* The study of the elementary principles of design of roof trusses, bents, cranes, bridges and other simple structures of wood and steel. Included in this course is the complete detailed analysis and design of a railroad plate girder bridge. (*AISC Handbook of Steel Construction and Simple Steel Structures*—Morris.)

MR. QUATTLEBAUM

C. E. 41—STRUCTURAL DESIGN—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Drawing 25, 28; C. E. 31, 34; C. E. 32 or M. E. 31, 49; C. E. 37; C. E. 38.

*Purpose:* Fundamentals of structural steel design. *Principal Topics:* The complete detailed design of a steel highway bridge along with the economics of design. (*Stresses in Simple Structures*—Urquhart and O'Rourke. *Design of Steel Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 42—STRUCTURAL DESIGN—Semester 2 (2 and 6) 4 cr.

*Prerequisite:* C. E. 31, 32 or M. E. 31, 49, and C. E. 34, 37, 38, 41, 45.

*Purpose:* A study of the design and construction of reinforced concrete structures. *Principal Topics:* Economics and design of reinforced concrete, bridges, piers, abutments, and retaining walls, and buildings. (*Highway Bridges*—Kirkham; *Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 43, 44—MATERIALS TESTING LABORATORY—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisites:* C. E. 32, 36.

*Purpose:* A study of the physical properties of construction materials and the standard methods of determining these properties. *Principal*



*Topics:* Physical test and analysis of construction materials, Portland cement, sand, concrete, etc., with special reference to highway materials both bituminous and non bituminous. In this course is included a study of Soil Mechanics as pertains to soil stabilization, with standard tests to determine the physical properties of soils.

MR. GLENN

C. E. 45—REINFORCED CONCRETE DESIGN—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* C. E. 31, 34, 32, or M. E. 31, 49.

*Purpose:* A study of theory and practice of reinforced concrete design. *Principal Topics:* Elements of Designs of Reinforced Concrete, beams, slabs, columns, footings, etc. (*Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 46—MUNICIPAL AND SANITARY ENGINEERING—Semester 2 (5 and 6) 5 cr.

*Prerequisite:* C. E. 49.

*Purpose:* To familiarize the student with the procedure necessary to supply an adequate amount of potable water for public or private purposes, and the design and construction of sewerage systems and sewage treatment plants. *Principal Topics:* Quantity of water necessary, sources of supply, methods of utilizing source of supply; analysis, treatment of unpotable water; impounding reservoirs, pipe lines, methods of distribution, fire protection; amount of sewage, separate or combined sewerage systems, specific hydraulic problems arising in sewer design, manholes, and other appurtenances; maintenance of sewers, disposal of sewage by dilution, and methods of treatment by sedimentation, septic tanks, Imhoff tanks, contact beds, trickling filters, intermittent sand filters, activated sludge, principles of irrigation by sewage. (*Water Supply and Sewerage*—Steel.)

MR. CLARKE

C. E. 47—REINFORCED CONCRETE DESIGN—Semester 1 (2 and 6) 2 cr.

*Prerequisite:* C. E. 31, 32, 34, or M. E. 31, 49.

*Purpose:* To give students not majoring in Civil Engineering a working knowledge of the theory of reinforced concrete design. *Princi-*

*pal Topics:* Design of reinforced concrete slabs, beams, girders, columns, and foundations. (*Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 48—CITY PLANNING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Registration in Civil Engineering in either the Senior or Junior year. *Elective Course:* Offered only if the registration justifies.

*Purpose:* To acquaint the student with the special problems confronting a city engineer or city manager not specifically of an engineering nature, but for the solution of which the public looks to the city officials. *Principal Topics:* Origin, growth, and development of cities; streets and street systems; traffic control; railway and water traffic problems; airports; parks and playgrounds; zoning; legal problems involved. (*Principles of City Planning*—Lohmann.)

MR. CLARKE

C. E. 49—HYDRAULICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Phys. 21, 22, 23, 24.

*Purpose:* To acquaint the student with the behavior of water at rest or in motion. *Principal Topics:* Pressures exerted by water at rest; methods of measuring pressure; principles of water in motion; Bernoulli's theorem; measurement of water by orifices, weirs, nozzles, and Venturi meters; flow of water through short and long pipes; flow of water in open channels. (*Hydraulics*—Schedder and Dawson.)

MR. CLARKE

C. E. 50—THESIS—Semester 1 or 2. 1 or 2 credits. (3 credits for exceptional work.)

Civil Engineering students of exceptional ability, with the permission of the Head of the Civil Engineering department may choose as an elective, the preparation and submission of a thesis covering some phase of Civil Engineering. This thesis may be either an independent experimental investigation entered into with the hope of discovery of new engineering knowledge, or the independent prosecution of some already somewhat stabilized problem in engineering design. Those students who desire to submit a thesis, as a part of their free electives, must present to the

Head of the Civil Engineering Department not less than one month prior to the opening of the semester during which the thesis work is intended to be done, a complete outline of the work contemplated in the proposed thesis and the projected method of procedure. (Amount of credit given depends upon the nature of the subject, the amount of time devoted to it, and the quality of the work.)

MR. CLARKE

## DAIRY

MR. LAMASTER

MR. GOODALE

DAIRY 21—INTRODUCTORY DAIRYING—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give a practical working knowledge of dairy husbandry and dairy products. *Principal Topics:* History of dairying, dairy breeds, feeds and feeding, judging dairy animals, dairy farm buildings, quality milk production, testing milk and some of its products, the manufacture of milk products, and the food value of milk and milk products. (*Principles of Dairying*—Henry F. Judkins—Richard W. Smith, Jr., Second Edition.)

MR. GOODALE

DAIRY 31—DAIRY CATTLE JUDGING—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give an understanding of dairy form, breed type, and relations between form and function in dairy cattle. *Principal Topics:* Study of score cards, show yard requirements and classifications; fitting cattle for show and sale; values as influenced by form; buying dairy cattle; practice in judging Jersey, Guernsey and Holstein cattle of all ages.

MR. LAMASTER

DAIRY 32—GENETICS—Semester 2 (2 and 2) 2 2/3 cr.

Suggested antecedent course: Ag. Ec. 33.

*Purpose:* To give the student an understanding of the principles of heredity and variation with special reference to their application to the animal kingdom. *Principal Topics:* Mendel's law, physical basis of inheritance, chromosome theory, linkage, expression and interaction of fac-

tors, origin of hereditary differences, inheritance of quantitative characters, biometric methods. (*Principles of Genetics*—Sinnott and Dunn—Second Edition.)

MR. LAMASTER

DAIRY 34—DAIRY PLANT ORGANIZATION AND MANAGEMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give a comprehensive understanding of the business of operating dairy plants with special emphasis on organization and practical management problems. *Principal Topics:* Survey before organization, form of organization, creamery construction, sewage disposal, refrigeration, labor, purchasing raw materials, equipment and supplies, power, water, rent, depreciation, interest, insurance, overrun, mechanical losses, manufacturing unit costs, marketing records, salesmanship, advertising, business correspondence, credits and collections, creamery bookkeeping, drawing creamery plans, and mathematical problems for the dairy plant operator. (*Management of Dairy Plants, Revised Edition, 1938*—Mortensen.)

MR. GOODALE

DAIRY 35—DAIRY CATTLE FEEDING AND MANAGEMENT—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the fundamental principles in the care, feeding, and management of dairy cattle of all ages. *Principal Topics:* General considerations in selecting a breed, selecting the individual cow, calf raising, growth and development, raising dairy heifers, care and management of the milking herd, milking factors, feeding for milk production, stables for cows, dairy barn equipment, handling manure. (*Dairy Cattle Feeding and Management, Third Edition, 1938*—Henderson.)

MR. LAMASTER

DAIRY 41—DAIRY MANUFACTURES (Butter and Market Milk)—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Dairy 21 and Chem. 38.

*Purpose:* To give a thorough knowledge of the manufacture of creamery butter, and the processing of market milk and special milks. *Principal Topics:* Development of buttermaking, plant equipment, factory sanitation, processing market milk, testing milk and milk products, buy-



ing milk and cream, receiving and grading milk and cream, neutralization, pasteurization, removing flavors and odors, ripening, starters and starter making, cultured milks, churning cream and all subsequent processes until butter is ready for market, composition control, by-products, butter scoring, and butter storage. (*The Butter Industry*—Second Edition, 1927—Hunziker.)

MR. GOODALE

DAIRY 42—DAIRY MANUFACTURES (Ice Cream and Cheese)—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Dairy 21 and Chem. 38.

*Purpose:* A thorough study of ice cream making and the manufacture of soft cheese. *Principal Topics:* Development of ice cream industry; classification and specialties; colors and flavors; fruits in ice cream and ices; ingredients, calculation, and processing of the mix, and all subsequent steps in manufacturing and storing until ice cream is ready for consumer; composition control, analyzing products used; defects in ice cream; merchandising, processing, and marketing soft cheese. (*Ice Cream Making*—Sommer, third edition.)

MR. GOODALE

DAIRY 43—DAIRY CATTLE BREEDING—Semester 1 (1 and 2) 1 2/3 cr.

*Prerequisite:* Dairy 32, Genetics.

*Purpose:* To give the student an understanding of the methods used in developing and improving the breeds of dairy cattle. *Principal Topics:* Breed history, pedigrees, advanced register, methods of indexing proved sires, statistical study of the relations of environment to production.

MR. LAMASTER

DAIRY 48—THE NUTRITION OF DAIRY CATTLE—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Dairy 35.

*Purpose:* To give the student an understanding of the methods by which the animal body converts vegetable products into animal products. *Principal Topics:* Composition of animals and feeding stuffs, digestion and resorption, circulation, respiration, and excretion, metabolism, balance of nutrition, requirements for maintenance, growth, reproduction, and milk production, function of minerals and vitamins.

MR. LAMASTER

DAIRY 51—SEMINAR—Semester 1 (1 and 0) 1 cr.

DAIRY 52—SEMINAR—Semester 2 (1 and 0) 1 cr.

*Prerequisite:* Dairy 21 and Dairy 35.

*Purpose:* To study special research problems in production and manufactures and to report the exposition of the results by theses. *Principal Topics:* Special selected individual topics not fully covered in course work, with emphasis placed on latest research.

MR. LAMASTER      MR. GOODALE

## DRAWING

MR. KLUGH

MR. HARRIS      MR. HODGE      MR. DOUGLASS      MR. SHIGLEY

DRAWING 11—FREEHAND DRAWING—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give the student a training in seeing and representing proportion and detail. *Principal Topics:* Proportion, detail, perspective.

MR. HODGE      MR. DOUGLASS

DRAWING 12—MECHANICAL DRAWING—Semester 2 (0 and 2) 2/3 cr.

*Purpose:* To train the student in the fundamentals of mechanical drawing to the point that he will be able to read drawings and make drawings of simple subjects. *Principal Topics:* Orthographic projection, dimensioning, blue printing. (Text to be announced.)

MR. HODGE      MR. DOUGLASS

DRAWING 13—ENGINEERING DRAWING—Semester 1 (0 and 4) 1 1/3 cr.

*Purpose:* To give the student a thorough grounding in the fundamental principles of Engineering Drawing. *Principal Topics:* Lettering, orthographic projection, threads, sectioning, tracing. (*Engineering Drawing*—French.)

MR. HARRIS      MR. SHIGLEY      MR. DOUGLASS      MR. CHAPMAN

DRAWING 14—ENGINEERING DRAWING—Semester 2 (0 and 4) 1 1/3 cr.

*Prerequisite:* Drawing 13.

*Purpose:* To continue Drawing 13, bringing in refinements and details that time did not permit in the fundamental course. About one-half of this course will be freehand sketching. (*Engineering Drawing—French.*)

MR. HARRIS      MR. SHIGLEY      MR. DOUGLASS      MR. CHAPMAN

DRAWING 25—MECHANICAL DRAWING—Semester 1 (0 and 2)  $2/3$  cr.

*Prerequisite:* Drawing 14.

*Purpose:* To ground the student in those fundamentals and essentials of the language of the engineer. *Principal Topics:* A continuation of the work given in Drawing 14; the descriptive geometry applications to graded problems, reading drawings, and layout work. (*Notes and Engineering Drawing—French.*)

MR. KLUGH      MR. DOUGLASS

DRAWING 26—ELEMENTARY DESIGN AND KINEMATICS—Semester 2 (0 and 2)  $2/3$  cr.

*Prerequisite:* Drawing 25.

*Purpose:* To train the student to apply problems in drafting room solution. *Principal Topics:* Elementary principles in Machine Design, carefully studied and worked and in class problems, theory and practice involving problems in Kinematics and applications to some principles in machine design. (*Engineering Kinematics—Smith*)

MR. KLUGH      MR. DOUGLASS

DRAWING 28—STRUCTURAL DRAWING—Semester 2 (0 and 2)  $2/3$  cr.

*Prerequisite:* Drawing 25.

*Purpose:* To acquaint the student with those needful helps in taking up major design problems in the structural field. *Principal Topics:* Elementary structural principles; study of symbols, proportions, and minor design; reading of structural drawings, study of methods in drafting, tracing, and blue printing. (*Engineering Drawing—French.*)

MR. KLUGH

DRAWING 31—MACHINE DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26.

*Purpose:* To teach the student the aid of layouts in the solution of many of his problems. *Principal Topics:* The course is a continu-

ation of Drawing 26, giving a more extended course in the theory and application of design problems; calculations required and specifications stressed. (*Notes and Engineering Kinematics*—Smith.)

MR. KLUGH                      MR. DOUGLASS

DRAWING 32—MACHINE DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Drawing 31.

*Purpose:* To give the proper background to the student before he takes up the design problems in his major subject. *Principal Topics:* Simple problems in design, stressing the theory of design and application to specific problems. Calculations required, discussions encouraged concerning involved problems, theory stressed above other things, for the purpose of understanding some principles needed in the design of machines. (*Machine Design*—Bradford and Eaton.)

MR. KLUGH

## ECONOMICS

MR. WARD

MR. GATES

ECON. 23, 24—PRINCIPLES OF ECONOMICS—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Sophomore standing.

*Purpose:* To teach fundamental principles and lay the foundations for more detailed study of special problems. *Principal Topics:* Theory of value; specialization and exchange; land, labor, and capital as productive forces; rent, wages, interest, and profits as distributive shares of the national income; money and banking; risk-taking; business cycles, and foreign trade. (*Economic Principles, Problems and Policies*—Kiekhofer.)

MR. WARD                      MR. GATES

ECON. 31—CONTEMPORARY ECONOMIC PROBLEMS—Semester 1 or 2 (3 and 0) 3 cr.

*Prerequisite:* Econ. 23 and 24.

*Purpose:* To present a critical analysis of the attacks on the structure and workings of the present economic system and of the leading proposals for the economic reorganization of society. *Principal Topics:* The integration of industry; industrial conflict; labor problems, the price system and its control; social insurance; government ownership and regula-



tion; comprehensive programs of economic policy such as liberalism, socialism, and economic planning. (*Contemporary Economic Problems—Taylor.*)

MR. WARD

ECON. 32.—MONEY AND BANKING—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Econ. 23 and 24.

*Purpose:* To survey the field of monetary standards and banking systems, together with a comprehensive study of the principles of money and banking. *Principal Topics:* The origin, nature, and functions of money; monetary standards, monetary history of the United States; money and prices; commercial banking and its development in the United States; foreign exchange; the Federal Reserve System, and the problem of price stabilization. (*Money and Banking—Bradford.*)

MR. WARD

ECON. 44.—INTRODUCTION TO BUSINESS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Economics 23 and 24, and permission of the instructor.

*Purpose:* To acquaint the student with the organization of American industries, the terms used, methods followed, problems encountered, and ways in which they are handled by business men. *Principal Topics:* The tools of industrial inquiry; business organization; production methods, problems and costs; labor relations and labor problems; prices and price arrangements; financing methods and problems; tax calculations and problems and industrial and economic planning. (*Introduction To Business—Spengler and Klein.*)

MR. GATES

## ELECTRICAL ENGINEERING

MR. RHODES

MR. TINGLEY    \*\*MR. SMITH    \*MR. CREDLE    MR. SLONE    MR. MASSEY

E. E. 22.—ELECTRIC CIRCUITS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Concurrent with Phys. 22 and Math. 22.

An introductory course for sophomore electrical engineers dealing with basic ideas and the fundamental laws of electric and electromagnetic circuits.

MR. RHODES

MR. TINGLEY

\*On leave 1938-1939.

\*\*In place of Mr. Credle.

E. E. 31—DIRECT-CURRENT MACHINERY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Phys. 21, 22; Math. 21, 22; E. E. 22.

The theory, construction, and operating characteristics of direct-current generators and motors; control equipment; transmission and distribution; and industrial applications. This course also includes continuation work on basic principles begun in E. E. 22.

MR. RHODES

E. E. 31a—ELECTRICAL MEASUREMENTS—Semester 1 (0 and 4) 1 1/3 cr.

*Prerequisite:* Must parallel or follow E. E. 31.

A laboratory study of the principles of direct-current, magnetic, and electrostatic circuits and the instruments used in their measurement. Emphasis is placed on proper choice of equipment, correct laboratory procedure and accurate presentation of results.

MR. SMITH

E. E. 32—ALTERNATING-CURRENT CIRCUITS—Semester 2 (5 and 0) 5 cr.

*Prerequisite:* E. E. 31.

The theory of the reactions of electric circuit constants to alternating currents and the development of a logical mathematical solution of single-phase and polyphase circuits.

MR. TINGLEY

MR. SMITH

E. E. 32a—ELECTRICAL LABORATORY—Semester 2 (0 and 4) 1 1/3 cr.

*Prerequisite:* E. E. 31. Must parallel or follow E. E. 32.

Part I. Tests to determine the principal characteristics of direct-current generators, motors and auxiliaries.

Part II. Experiments on the theory of single-phase and polyphase alternating current circuits. Embraces a study of leading alternating current instruments.

MR. SMITH

E. E. 33—DIRECT-CURRENT MACHINERY—Semester 1 (4 and 0) 4 cr.

*Prerequisite:* Phys. 21, 22; Math. 21, 22.

The laws of the electric and magnetic circuits; the theory and operating characteristics of direct-current generators and motors; efficiency of direct-current machinery; direct-current distribution.

MR. SMITH                      MR. SLONE

E. E. 33a—ELECTRICAL MEASUREMENTS—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 33.

A course embracing essentially the same experiments as those given in E. E. 31a.

MR. MASSEY

E. E. 34—ALTERNATING-CURRENT CIRCUITS—Semester 2 (4 and 0) 4 cr.

*Prerequisite:* E. E. 33.

Single-phase and polyphase circuits; alternating-current instruments; theory of alternating-current transformers.

MR. SMITH                      MR. SLONE

E. E. 34a—ELECTRICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 34.

A course embracing essentially the same experiments as those of E. E. 32a.

MR. MASSEY

E. E. 35—ELECTRICAL MACHINERY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Phys. 11, 12 or Phys. 21, 22.

An elementary course in direct-current and alternating-current machinery. Intended primarily to acquaint the student with the adaptability of electric motors for specific applications.

MR. SLONE

E. E. 35a—ELECTRICAL LABORATORY—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Physics 11, 12 or Physics 21, 22.

A series of experiments demonstrating the principal applications of motors and other electrical equipment.

MR. MASSEY

E. E. 36—ELECTRICAL MACHINERY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Phys. 21, 22.

An elementary course in direct-current and alternating-current machinery with special emphasis on operating characteristics and adaptability of specific types for certain duties.

MR. SLONE

E. E. 36a—ELECTRICAL LABORATORY—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Physics 21, 22.

A number of laboratory demonstrations of the characteristics of electrical equipment used by civil engineers.

MR. MASSEY

E. E. 38—VOCATIONAL ELECTRICITY—Semester 2 (1 and 2)  $1\frac{2}{3}$  cr.

*Prerequisite:* E. E. 35.

Planned for teachers in high schools. It embraces (1) the application of elementary principles of electricity and magnetism to experiments and projects of special interest and value to high school students (2) the principles of organization of such work by the instructor.

MR. SMITH

E. E. 41—ALTERNATING-CURRENT MACHINERY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* E. E. 31, 32.

Theory, design, and operating characteristics of transformers, synchronous machines, polyphase induction motors, and alternating-current machinery auxiliaries.

MR. RHODES



E. E. 41a—ELECTRICAL LABORATORY—Semester 1 (1 and 3) 2 cr.

*Prerequisite:* Must parallel or follow E. E. 41.

Part I: A complete experimental analysis of losses and operating characteristics of direct-current machines (continuation of E. E. 32a).

Part II. A laboratory study of the operating characteristics of (1) synchronous generator including phase connections, voltage regulation, efficiency and parallel operation (2) induction regulators and constant-current transformers.

MR. TINGLEY

E. E. 42—ALTERNATING-CURRENT MACHINERY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* E. E. 41.

Part I. A continuation of E. E. 41 embracing single-phase motors, synchronous converters, mercury arc rectifiers, and alternating-current machinery controls.

Part II. Special problems, such as harmonics in generators and transformers, short circuits, machine and system stability.

MR. RHODES

E. E. 42a—ELECTRICAL LABORATORY—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* E. E. 41, 41a.

Continuation of E. E. 41a including a comprehensive study of single-phase transformers, operating characteristics of polyphase induction motors, synchronous motors, synchronous converters, single-phase motors, and automatic magnetic and electronic control equipment.

MR. TINGLEY

E. E. 43—ALTERNATING-CURRENT MACHINERY—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* E. E. 34.

The theory and characteristics of transformers, synchronous generators, and motors, polyphase induction motors, single-phase motors, synchronous converters, rectifiers, and auxiliaries.

MR. TINGLEY

E. E. 43a—ELECTRICAL LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 43.

A course paralleling E. E. 43 for the experimental determination of the characteristics of principal types of alternating-current transformers, generators, motors, converters, and controls.

MR. SLONE

E. E. 44—ELECTRIC POWER TRANSMISSION—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* E. E. 41.

The electrical and economic principles of electric power transmission. A comprehensive study of line constants and losses and how they affect the regulation of the long and short electrical line; system regulations protection and stability; and efficiency of transmission of large blocks of power.

MR. TINGLEY

E. E. 45—ELECTRICAL DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* E. E. 31.

The application of the fundamental principles of electric and magnetic circuits through a complete design of a generator or motor, including prediction of operating characteristics from design data.

MR. RHODES

E. E. 46—ELECTRICAL DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* E. E. 41.

Problems in transformer and induction motor design and in transmission system regulation. These problems correlate with E. E. 41 and E. E. 44.

MR. RHODES

E. E. 47—ELECTRONICS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* E. E. 32 or E. E. 34.

The properties of electron tubes with particular reference to their uses in industry and in communication. Characteristics of high vacuum

and gas filled diodes, high vacuum triodes and thyratrons are the principal topics.

MR. SMITH

E. E. 48—**RADIO COMMUNICATION**—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 47.

The application of electron tubes to the field of communication. The use of the triodes as an audio frequency amplifier, as a radio frequency amplifier and as an oscillator. The characteristics of other multi-element tubes.

MR. CREDLE

E. E. 49—**ADVANCED INDIVIDUAL PROBLEM**—Semester 1 or 2 (2 and 0) 2 cr.

Intended to enable a limited number of students to undertake specific projects in which they may be especially interested. The laboratories afford excellent facilities for this work.

DEPARTMENT STAFF

E. E. 50—**POWER STATIONS**—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 41 or 43.

A course covering the general subject of economic production of electrical energy and the study of typical arrangements of generating equipment in steam and in hydro-stations.

MR. RHODES

E. E. 52—**ELECTRICAL DISTRIBUTION**—Semester 2 (2 and 0) 2 cr.

Technical and economic features of local wiring systems; city and rural distribution; control and protective equipment. Includes reference reading and preparation of papers for class presentation.

MR. TINGLEY

E. E. 54—**ILLUMINATION**—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 41 or 43.

Fundamental principles of illumination embracing light sources; photometry; reflection and absorption; color; street, residence, industrial and commercial lighting.

MR RHODES

E. E. 56—ELECTRIC TRANSIENTS—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* E. E. 32.

To enable a few of the more advanced electrical engineering students to obtain a clearer conception of the physical phenomena and mathematical analysis of electrical circuits and machines in the transient state and to verify the theory involved by means of oscillographs.

MR. TINGLEY

## ENGLISH

MR. DANIEL

|             |            |             |            |           |
|-------------|------------|-------------|------------|-----------|
| MR. BRADLEY | MR. TAYLOR | MR. LANE    | MR. KINARD | MR. GREEN |
| MR. LUCAS   | MR. BOONE  | *MR. HENRY  | MR. DURHAM | MR. DEAN  |
|             |            | **MR. GAUGH |            |           |

ENGLISH 15, 16—COMPOSITION AND AMERICAN LITERATURE—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To train the student in the use of correct, accurate, and effective language and to acquaint him with outstanding works of the major American authors. *Principal Topics:* Some review of principles of grammar and punctuation; principles of and practice in the various units of composition, especially the paragraph; letter writing; vocabulary; supplementary reading and classroom reports; selected works from the principal American authors. (*Century Collegiate Handbook*—Greever and Jones; *The College Reader*—Lovett and Jones; *Practice Handbook in English*—Jones; a dictionary.)

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|-----------|-----------|-------------|------------|-----------|
| MR. LANE  |           | MR. KINARD  |            | MR. GREEN |
| MR. LUCAS | MR. BOONE | *MR. HENRY  | MR. DURHAM | MR. DEAN  |
|           |           | **MR. GAUGH |            |           |

ENGLISH 21, 22—ENGLISH LITERATURE AND ADVANCED COMPOSITION—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 15 and 16.

*Purpose:* To give the student a more intimate knowledge and appreciation of Nineteenth Century English literature; to cultivate his powers

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\*On leave 1938-1939.

\*\*In place of Mr. Henry on leave.



of composition for accurate expression. *Principal Topics:* An intensive study of outstanding authors of the Romantic and Victorian periods of English literature; supplementary reading from the best authors; periodic themes based upon reading and other assignments; classroom discussion of themes; consultation with students for individual discussion. (*The Literature of England*, Vol. II—Watt, Wood and Anderson.)

MR. TAYLOR

MR. LANE

MR. KINARD

MR. GREEN

MR. LUCAS

ENGLISH 31—PUBLIC SPEAKING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To train the student in the art of practical public speaking. *Principal Topics:* The improvement of pronunciation, enunciation, voice, and stage presence; outlining and delivery of original speeches; impromptu and extemporaneous speaking; debate; parliamentary practice. (*Better Speech*—Woolbert and Weaver.)

MR. DANIEL

MR. BRADLEY

ENGLISH 32—BUSINESS LAW—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To fix the principles of Business law in the student's mind with the view of helping him to avoid legal difficulties. *Principal Topics:* Origin and purpose of laws; contracts; agency; negotiable instruments; sales; personal and real property; cases. (*American Business Law*—Frey.)

MR. DANIEL

MR. BRADLEY

ENGLISH 43, 44—SHAKESPEARE—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give the student as comprehensive an acquaintance with the dramatic work of Shakespeare as possible. *Principal Topics:* A general approach to appreciation of plays from the point of view of the theater; Shakespeare's development as a dramatist; matters of character and presentation of individual plays. (A complete edition of Shakespeare's plays; *The Facts about Shakespeare*—Neilson and Thorndike.)

MR. TAYLOR

ENGLISH 45—NEWS WRITING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give additional training in English through the project method. *Principal Topics:* Gathering the news; kinds of news stories; structure and style; lead; reporting; interviewing; reports.

MR. DANIEL

ENGLISH 46—BUSINESS ENGLISH—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 31 and 32.

*Purpose:* To give training in business customs and practices. *Principal Topics:* Business letters and forms; methods of approach; securing and conducting interviews; presenting plans and propositions; salesmanship; reports; developing a pleasing personality. (*Salesmanship*—Fernald.)

MR. DANIEL

ENGLISH 47, 48—CHAUCER—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give the student familiarity with the language, verse forms, and stories of Chaucer; to cultivate a grasp of fourteenth century thought and literary motivation. *Principal Topics:* (First Semester) Reading from the prologue and the Canterbury Tales with other short selections; supplementary reading from contemporary and later critical authors; term paper; (Second Semester). Detailed study of Troilus and Criseyde; term paper. (*The Works of Chaucer.*)

MR. BRADLEY

ENGLISH 49—AGRICULTURAL JOURNALISM—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give training in the fundamentals of journalism; to apply this training to the actual writing and publishing of agricultural copy. *Principal Topics:* Introductory study of the basic principles of journalism; detailed study of agricultural news story, feature story, editorial, and miscellany; periodic publication of agricultural news stories in country weeklies; publication of at least one feature story in an agricultural journal. (*Agricultural Journalism*—Crawford and Rogers.)

MR. BRADLEY

## ENGLISH 50—THESIS—Semester I (0 and 2) 2/3 cr.

*Purpose:* To give the student practice in making research and presenting the results in proper form. *Principal Topics:* Statement of the problem; object and scope of the investigation; history of the problem; possible application of results; plan of procedure. (To be prepared under the direction of a member of the School of General Science and approved as to content by him and as to form by a representative of the English department.)

MR. KINARD

## ENGLISH 53, 54—INTRODUCTION TO DRAMA—Semesters I and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To offer a systematic study of the principles and progress of drama from the time of Aeschylus to the present day. *Principal Topics:* Dramatic history and criticism, representative plays, the stage and theatrical conditions, the continental background of English drama, influence of life of the time on authors, actors and managers, written exercises in dramatic criticism, class discussions of new trends in legitimate drama and movies, controlled breathing, voice training, emotional expression, and the theory of acting. (*Introduction to Drama*—Hubbell and Beaty.)

MR. LANE

## ENGLISH 57, 58—SELECTED MASTERPIECES FROM ENGLISH LITERATURE—Semesters I and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To help students learn and appreciate a variety of literary masterpieces, selections not included in other courses at Clemson. *Principal Topics:* Selections studied vary with classes—a representative list for a semester: *Paradise Lost* (6 books); *Gulliver's Travels*; *Beowulf*; *Diary of Samuel Pepys* (selections); Boswell's *Johnson* (selections); Pope's *Iliad* (selections); *Tom Jones*; Bacon's essays; *Pilgrim's Progress*. (No general text. Cheap editions of some selections are bought.)

MR. KINARD

## ENTOMOLOGY\*

MR. SHERMAN

MR. DUNAVAN

ENT. 31—INTRODUCTION AND APPLIED ENTOMOLOGY—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To give agricultural students information concerning the structure, life-history, and habits of insects in general and to provide instruction in control of the principal injurious species. *Principal Topics:* Insect structure, metamorphosis, habits, characteristics of the principal orders of insects, methods of control of injurious forms. (*Applied Entomology*—Fernald.)

MR. SHERMAN

ENT. 32—GENERAL ENTOMOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* Designed especially for students who wish to choose Entomology as their life-work. The aim is to provide basic training in the general phases of Entomology. *Principal Topics:* Near relatives of insects; history of Entomology; insect metamorphosis; classification, habits, and characteristics of the members of the principal families in all orders of insects; technique of collecting and preserving insects. (*Manual for the Study of Insects*—Comstock.)

MR. DUNAVAN

ENT. 41—ECONOMIC ENTOMOLOGY—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* To so equip the student that he will be able to recognize injurious species of insects and their damage and be able to control them intelligently. *Principal Topics:* Effect of cultivation on insect populations; peculiarities of field crops and their insect enemies; identification, life-history, and control of insect enemies of corn, wheat, oats, clover, alfalfa, peas, beans, tobacco, cotton, sugar cane, stored grain, cattle, horses, sheep, swine, poultry, and man. (*Destructive and Useful Insects*—Metcalf and Flint.)

MR. DUNAVAN

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\*Students who major in Entomology are required to take certain courses in Zoology which are listed under that subject. See Zoology.



ENT. 42—ECONOMIC ENTOMOLOGY—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* To train students in the recognition of fruit and vegetable insects and in methods of control of these pests. *Principal Topics:* Beneficial insects, history of insect control, host resistance, theory of insect control, chemistry and preparation of common insecticides, special requirements of control of fruit and vegetable insects, identification, life-histories, and control of insect enemies of apples, pears, peaches, plums, cherries, grape, bush fruits, strawberries, and all vegetable crops. (*Destructive and Useful Insects*—Metcalf and Flint.)

MR. DUNAVAN

ENT. 44—BEEKEEPING—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31.

*Purpose:* To provide the student with the knowledge and actual practice of modern beekeeping which will enable him to become a successful beekeeper. *Principal Topics:* Activities of the colony, life-history and metamorphosis of bees, spring, fall and winter management; enemies of bees, swarm control, production of honey, methods of wintering. (*ABC and XYZ of Beekeeping*—Root.)

MR. DUNAVAN

ENT. 45—INSECT MORPHOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* Designed especially for students majoring in Entomology. The aim is to give the student detailed knowledge of the external and internal morphology of insects. *Principal Topics:* Structure of the insect head, thorax, abdomen, and body appendages, structure of muscles, external and internal skeleton, alimentary canal, reproductive, respiratory, and nervous systems, structure and function of glands and sense organs, physiology of respiration and digestion. (Laboratory: *Anatomy of Insects*—Comstock & Kellogg.)

MR. DUNAVAN

ENT. 46—SYSTEMATIC ENTOMOLOGY—Semester 2 (1 and 4) 2 1/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To give students specializing in Entomology training in identification of insects by the use of keys. *Principal Topics:* Theory of

nomenclature, philology of scientific names, important taxonomists of the past and present, detailed taxonomic study of selected groups of insects.

MR. SHERMAN

ENT. 47—PARASITOLOGY—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Zoology 12 or 21 and Entomology 31.

*Purpose:* To give technical training in Human Parasitology. Special emphasis is placed on life-cycles of parasites and on identification of the insect carriers and transmitters of parasites. *Principal Topics:* Protozoa, flukes, tapeworms, roundworms, medical entomology.

MR. DUNAVAN

ENT. 51 and 52—SEMINAR—Semesters I and 2 (1 and 0) 1 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To train students specializing in Entomology in presenting short talks on scientific topics. To present miscellaneous information not given in regular courses but of value to professional Entomologists. *Principal Topics:* Study of various technical journals, lives of famous Entomologists, tropisms of animals, insect ecology.

MR. DUNAVAN and other staff members.

ENT. 59—INTRODUCTION TO RESEARCH—Semester I (1 and 2) 1 2/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To familiarize the student with research methods in Entomology and to enable each student to gather data and write a graduation thesis. *Principal Topics:* Outlining a problem in research, bibliographic methods, graphic presentation of data, reviews of published papers on entomological technique, practical photography.

MR. DUNAVAN

## FRENCH

MR. RHYNE

MR. DEAN

FRENCH 11, 12—BEGINNER'S FRENCH—Semesters I and 2 (3 and 0) 3 cr.

*Purpose:* To provide the student with a foundation upon which, by subsequent work, he can build up a reading knowledge of French. *Prin-*

*cipal Topics:* The fundamentals of grammar with emphasis on pronunciation and the learning of idioms, conversation and dictation. In the second semester a reader will be used.

MR. RHYNE      MR. DEAN

FRENCH 21, 22—SECOND-YEAR FRENCH—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To help the student acquire a reading knowledge of French, to appreciate some of the beauties of French literature, and to read scientific books. *Principal Topics:* Review of grammar, with especial attention to irregular verbs; conversation and dictation continued, prose readings from such authors as Balzac, Daudet, Dumas, Hugo, Loti, Maupassant and Merimee.

MR. RHYNE

FRENCH 31, 32—THIRD-YEAR FRENCH—Semesters 1 and 2 (2 and 0)  
2 cr.

A course in rapid reading of literary or scientific prose.

MR. RHYNE

## GEOLOGY AND MINERALOGY

MR. CALHOUN

MR. GEE

GEOL. 21—AGRICULTURAL GEOLOGY—Semester 1 (3 and 0) 3 cr.

*Purpose:* In this course the student is shown the relationships existing between geology and practical agricultural problems, especially those in connection with soil formation and adaptation. *Principal Topics:* Soil making minerals and rocks; formation of soils from rocks; the question of the relation of underground water to springs, wells, and artesian wells; drainage problems and soil water are considered. The soil series are taken up with relation to the rocks from which they are derived and the geologic agents which aid in their formation. (*Agricultural Geology*—Emerson.)

MR. CALHOUN

GEOL. 23, 24—GENERAL GEOLOGY—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with geology as applied not only to a thorough enjoyment of nature, but also to its many practical applications. *Principal Topics:* These courses emphasize topographic forms and their origin. The earth is considered first as a member of the solar system, and from this the evolution of the earth through all of its changes to the geography and life of the present day is traced. Special attention is given

to the study of topographic and geologic maps. (*Outlines of Geology*—Longwell, Knopf, Flint, Schuchert & Dunbar.)

MR. GEE

GEOL. 33, 34—MINERALOGY—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give to students a comprehensive knowledge of crystallography, mineralogy, and blowpipe analysis. *Principal Topics:* The first semester is devoted to crystallography and optical mineralogy; the second is descriptive and determinative mineralogy. Crystallography is taught by lectures, with the laboratory work based on models and natural crystals. Mineralogy and blowpipe analysis enable the student to identify readily all but the rarer minerals. (*Blowpipe Analysis*—Moses and Parsons.)

MR. CALHOUN

GEOL. 42—METEOROLOGY—Semester 2 (2 and 0) 2 cr.

*Purpose:* A course designed to give the general principles of meteorology and climatology as applied to farming, aviation, and to those sciences which require a knowledge of such principles. *Principal Topics:* The course concerns itself in detail with those elements which control the weather, such as temperature, pressure, wind, humidity, clouds, and precipitation. The study of weather maps and conclusions to be drawn from them are made an important part of the course. (*Meteorology*—Milham.)

MR. CALHOUN

GEOL. 43—ENGINEERING GEOLOGY—Semester 1 (2 and 0) 2 cr.

*Purpose:* To show the practical application of geology to problems of engineering. *Principal Topics:* Materials from the earth's crust which the engineer must use; structural geology which gives an idea how such material is arranged; dynamic geology which emphasizes both those forces which tear the earth down and those which build it up. Topographic and geologic maps are used extensively in connection with the text. (*Elements of Engineering Geology*—Ries and Watson.)

MR. CALHOUN

## GERMAN

MR. RHYNE

GERMAN 11, 12—BEGINNER'S GERMAN—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To provide the student with a foundation upon which, by subsequent work he can attain a reading knowledge of German. *Principal*



*Topics:* The essentials of German grammar. Stress is laid on pronunciation, conversation, and drill in the fundamental constructions. Dictation is given throughout the year. In the second semester an elementary reader is used.

MR. RHYNE

GERMAN 21, 22—SECOND-YEAR GERMAN—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To help the student to build up a reading knowledge of German, to appreciate some of the beauties of German literature, and to read scientific books. *Principal Topics:* Review of grammar; conversation and dictation continued; easy lectures in German; prose readings from such authors as Baumbach, Freytag, Hauff, Storm, and Wildenbruch.

MR. RHYNE

GERMAN 31, 32—THIRD-YEAR GERMAN—Semesters 1 and 2 (2 and 0)  
2 cr.

A course of rapid reading of literary or scientific prose.

MR. RHYNE

## GOVERNMENT

MR. WARD

MR. GATES

\*MR. EPTING

MR. KENDRICK

MR. WALKER

GOV. 12—AMERICAN NATIONAL GOVERNMENT—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the system of American Federal Government. *Principal Topics:* The Constitution, Senate, House of Representatives, joint congressional activities, powers of Congress, President, executive departments, independent establishments, Judiciary, relation to the states and territories, citizenship, international relations, political parties.

MR. GATES

MR. KENDRICK

MR. WALKER

GOV. 31—AMERICAN GOVERNMENT AND POLITICAL PARTIES—Semester 1 (3 and 0) 3 cr.

Not open to those who have had Government 12.

*Purpose:* To give the student a broad survey of the principles and practices of American government. *Principal Topics:* The Constitution,

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\*On leave 1938-1939.

citizenship and suffrage, political parties, the national executive, the Congress, the national judiciary.

MR. GATES

Gov. 32—STATE AND LOCAL GOVERNMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Government 12 or 31 and permission of the instructor.

*Purpose:* To familiarize the student with the way in which government is carried on by agencies other than the national government. *Principal Topics:* The place of the state in the nation, state and local administration, taxation, economic and social functions, county and municipal government, governmental problems in South Carolina.

MR. EPTING

Gov. 44—COMPARATIVE GOVERNMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Government 12 and permission of the instructor.

*Purpose:* To acquaint the student with a few of the more important governmental systems of the world. *Principal Topics:* Historical development of present-day political institutions; current phases of governmental practice and policy, especially in Great Britain, Germany, Italy, and Russia.

MR. GATES

## HISTORY

MR. HOLMES

\*MR. EPTING

MR. KENDRICK

MR. WALKER

HISTORY 14—AMERICAN ECONOMIC HISTORY—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To teach the student to think in terms of economic and social forces. *Principal Topics:* Commercial Revolution of Europe of the fifteenth century, colonization, mercantilism, industrial revolution, economic aspects of the several American wars, the westward movement, transportation, rise of labor, decline of laissez faire, recent agricultural development. (*A History of American Economic Life*—Kirkland.)

MR. HOLMES

MR. KENDRICK

MR. WALKER

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\*On leave 1938-1939.

HISTORY 31, 32—HISTORY OF CIVILIZATION—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Open only to Juniors and Seniors.

*Purpose:* To inform the student in a general way of all the outstanding civilizations of the past. *Principal Topics:* Egypt with its monuments and religion; Babylonian law and commerce; Aegean culture, introduction of the horse, iron, and Indo-European literature; Hellenic and Hellenistic cultures: art, literature, philosophy, science; Roman law, expansion, and civilization; the feudal system; medieval art; rise of modern states and capitalism; Age of Louis XIV; Age of Reason; modern science, industry and art. (*History of Civilization*—Thorndike.)

MR. HOLMES

HISTORY 42—THE DEVELOPMENT OF SOUTH CAROLINA—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Permission of the instructor.

*Purpose:* To acquaint the student with the principal social and economic factors that have influenced the growth of the State. *Principal Topics:* Land disposal, systems of labor, racial and cultural groups, agriculture, industry, education, religion, social conflicts.

MR. HOLMES

## HORTICULTURE

MR. MUSSER

MR. NEWMAN    \*MR. ANDREWS    MR. WHITE    MR. EDMOND

HORT. 22—GENERAL HORTICULTURE—Semester 2 (2 and 3) 3 cr.

*Purpose:* To give the student training which will enable him to apply the fundamentals of plant growth to the growth and development of horticultural crops, with particular emphasis on the home orchard, home garden, and home beautification. *Principal Topics:* A review of fundamental plant processes and plant structures. The influence of temperature, light, water, and nutrients on vegetation and reproduction. A study of principal horticultural practices, including seedage, propagation, sites and soils, fertilization, plant growing, cultivating, harvesting, storing, marketing, and pest control. A study of principal horticultural crops,

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\*On Leave

including the fruit crops—their fruiting habits, training, pruning, and spraying; the vegetable crops, including their growth habits and methods for successful production; and the ornamental crops, including their place, selection, and arrangement in the home. (*General Horticulture*—Edmond, Andrews, and Musser.)

MR. MUSSER

MR. EDMOND

MR. WHITE

HORT. 31—PLANT PROPAGATION AND NURSERY MANAGEMENT—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student a thorough knowledge of the methods of managing a commercial nursery and propagating plants of all kinds. *Principal Topics:* Methods of propagation; time, manner, and material for making cuttings, temperature and media for rooting cuttings of ornamental trees, shrubs and flowering plants; propagating structures, soils, fertilizers, and management methods for commercial nurseries. Practical instruction given in field and greenhouse. (*The Modern Nursery*—Laurie and Chadwick.)

MR. NEWMAN

HORT. 32—ELEMENTARY LANDSCAPE DESIGN—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 31.

*Purpose:* To give the student a practical course in general landscape gardening, a thorough knowledge of plant materials used in landscape designing. *Principal Topics:* Kinds of landscape gardens, principles of landscape art, improvement of home, school grounds, and park areas; mapping, designing, identification, an adaptation of decorative plants to landscape work. (Assigned references.)

MR. NEWMAN

HORT. 33—PRINCIPLES OF VEGETABLE PRODUCTION—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the student a knowledge of the basic principles underlying the methods used in growing vegetables. *Principal Topics:* Types and classification of vegetables, plant growing, forcing and forcing structures, seeds, use and value of the various fertilizer materials, trans-



planting, value of cultivation, irrigation, relation of water to quality, storage, review of important experimental work. (*Vegetable Crops*—Thompson.)

MR. EDMOND

HORT. 41—SYSTEMATIC POMOLOGY AND SMALL FRUIT CULTURE—Semester I (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

PART I—SYSTEMATIC POMOLOGY.

*Purpose:* To acquaint students with the many and varied characters of deciduous and citrus fruits, both plant and fruit; to classify and identify varieties. *Principal Topics:* The structure of fruit plants—roots, stems, leaves, flowers, fruit, etc.; physiological characters; methods of work in systematic pomology and of classification; habitat, history, color, form, structure, quality, flavor and use of pome, drupe, bramble and heath fruits, grapes, strawberries, currants and gooseberries, and various citrus fruits; judging and displaying fruits. (*Systematic Pomology*—Hedrick.)

PART II—SMALL FRUIT CULTURE.

*Purpose:* To give the student a knowledge of the principles of production and preparation for market of small fruits. *Principal Topics:* Varieties, soils, sites, culture, fertilizers, harvesting, and preparation for marketing of grapes, strawberries, dewberries, blackberries, raspberries, and other small fruits. (*Small Fruits*—Shoemaker.)

MR. MUSSER

\*HORT. 43—THE BREEDING OF HORTICULTURAL CROPS—Semester I (2 and 2) 2 2/3 cr.

*Purpose:* To train the student to apply the principles of genetics to the improvement of horticultural crop plants. *Principal Topics:* Genetics and breeding practices; the technique of selection, varietal and species crossing, sterility, and incompatibility, mutations and chimeras; the origin of new forms. (Assigned References.)

MR. EDMOND

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\*Hort. 43 and Hort. 47 are given in alternate years. Hort. 47 will be offered in 1939-1940.

HORT. 45—LANDSCAPE DESIGN—Semester 1 (1 and 3) 2 cr.

*Prerequisite:* Hort. 31.

*Purpose:* To familiarize the student with plant materials used in landscape designing for home grounds, parks, and small estates. *Principal Topics:* Systematic study of trees, shrubs, and herbaceous plants used on landscape designs; practical problems to be worked with the same attention to details as is necessary in actual practice of landscape designing.

MR. NEWMAN

HORT. 46—ADVANCED LANDSCAPE DESIGN—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 31, 32, and 45.

*Purpose:* To prepare the student to engage in Landscape Designing as a profession. *Principal Topics:* Classification of trees, shrubs and flowering plants with special reference to their use in landscape designing; soils, manures and fertilizers; establishing and maintaining lawns on large estates; vines and other ground covers; detail estimates of cost of developing large landscape problems; advanced design. (Assigned references.)

MR. NEWMAN

\*HORT. 47—NUT CULTURE AND SPRAYS AND SPRAYING—Semester 1 (2 and 2) 2 2/3 cr.

#### PART I—NUT CULTURE.

*Purpose:* To give the student a knowledge of the principles of production and preparation for market of the principal nut crops. *Principal Topics:* Propagation, varieties, soils, sites, cultural methods, pollination problems, fertilizers, harvesting, and grading of pecans, walnuts, filberts, and almonds. (Assigned references.)

#### PART II—SPRAYS AND SPRAYING.

*Purpose:* To give the students a working knowledge of the properties and application of fungicides and insecticides in the control of pests of horticultural crops. *Principal Topics:* Classes of fungicides and in-

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\*Hort. 43 and 47 are given in alternate years. Hort. 47 will be offered in 1939-1940.

secticides; their properties, effectiveness, influence on plant functions, costs, and the methods of application. (References.)

MR. ANDREWS

HORT. 52—COMMERCIAL POMOLOGY—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the students a knowledge of the methods of establishing and managing a large fruit orchard. *Principal Topics:* Fruit bud formation, rest period, and water responses of fruit plants; fruit tree soils; fruit setting and self-unfruitfulness of the important fruits; orchard soil management and responses of various fruits to applications of fertilizers; fundamental principles of and response of fruit trees to pruning; effect of climatic differences; freezing of tissues and means of avoiding injury; harvesting, transportation, storage. (*Fundamentals of Fruit Production*—Gardner, Bradford and Hooker; *Orchard and Small Fruits*—Auchter and Knapp.)

MR. MUSSER

HORT. 54—TRUCK CROPS—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the student a thorough knowledge of the truck industry with special reference to growing and market truck crops along the Atlantic coast. *Principal Topics:* Plant characteristics, varieties, soils, fertilizers, cover crops, water requirements, harvesting and preparation for market of asparagus, beans, cabbage, Irish potatoes, sweet potatoes, cantaloupes, watermelons, tomatoes, and various less important crops. (*Southern Vegetable Crops*—Ware; Assigned References.)

MR. EDMOND

HORT. 56—LANDSCAPE DESIGN—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* Hort. 31, 43.

*Purpose:* To give the student a thorough knowledge of and practical experience in landscape problems of large areas. *Principal Topics:* Civic improvements, mill villages, public buildings, squares, parks, storm water control, water courses, lakes, lawns, drives, and walks; trees and shrubs and their requirements; study of finished problems in Landscape Design, original problems, field work, and drafting.

MR. NEWMAN

HORT. 61-62—SPECIAL PROBLEMS—Semesters 1 and 2 (1 and 0) 1 cr.

*Purpose:* To give experience in interpreting and analyzing reports of recent horticultural investigations. *Principal Topics:* Recent research work on various phases of horticulture, methods of conducting investigations, preparation of report of investigations. (Assigned References from various sources.)

MR. MUSSER                      AND HORTICULTURE STAFF

### MATHEMATICS

MR. MARTIN

|            |             |              |                        |
|------------|-------------|--------------|------------------------|
| MR. HUNTER | MR. SHELDON | MR. BURTON   | MR. EDWARDS            |
| MR. COKER  | MR. BELL    | MR. KIRKWOOD | MR. KELLY   MR. MILLER |

MATH. 11—PLANE TRIGONOMETRY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Algebra and Plane Geometry.

*Purpose:* To give the student a thorough knowledge of the principles of plane trigonometry together with its various applications to related problems and exercises. *Principal Topics:* Trigonometric functions of an acute angle, reciprocal functions, functions of complementary angles, fundamental relations between the functions, functions of any angle; logarithms; the right triangle; solutions of problems in heights and distances, projections, forces, velocities, and accelerations, isosceles triangles, polygons, and related circles; oblique triangles, laws of sines, cosines, and tangents with their various applications in the solution of triangles; the functions of the sum and difference of two angles, the double angle, and the half angle; inverse functions and trigonometric equations. (*Plane Trigonometry and Analytic Geometry*—Sprague.)

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|------------|------------|--------------|------------------------|
| MR. HUNTER | MR. BURTON | MR. SHELDON  | MR. EDWARDS            |
| MR. BELL   | MR. COKER  | MR. KIRKWOOD | MR. KELLY   MR. MILLER |

MATH. 12—COLLEGE ALGEBRA AND ANALYTIC GEOMETRY—Semester 2 (5 and 0) 5 cr.

*Prerequisite:* Mathematics 11.

*Purpose:* To drill the student on the fundamental principles of algebra which are absolutely essential in the pursuit of his higher mathematics and to give him a thorough knowledge of the working principles of analytic geometry. *Principal Topics:* The first month will be devoted to a



rapid review of the fundamental principles of algebra with special emphasis on the subjects which will come up in subsequent courses in mathematics. (*Advanced Algebra*—Graham and John; *Trigonometry and Analytic Geometry*—Sprague.)

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|------------|------------|--------------|-------------|
| MR. HUNTER | MR. BURTON | MR. SHELDON  | MR. EDWARDS |
| MR. BELL   | MR. COKER  | MR. KIRKWOOD | MR. KELLY   |
|            |            |              | MR. MILLER  |

MATH. 17, 18—FIRST YEAR COLLEGE MATHEMATICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Algebra and Plane Geometry.

*Purpose:* To prepare the student to cope with the problems arising in the general science and pre-medical courses. *Principal Topics:* A course similar to Mathematics 11, 12, and 15, treating the fundamental topics met with in the sciences. (*Trigonometry and Analytic Geometry*—Sprague.)

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|------------|-------------|------------|-------------|--------------|
| MR. HUNTER | MR. SHELDON | MR. BURTON | MR. EDWARDS | MR. KIRKWOOD |
|------------|-------------|------------|-------------|--------------|

MATH. 21—DIFFERENTIAL CALCULUS—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Mathematics 12.

*Purpose:* To give the student a thorough working knowledge of differential calculus and its various applications. *Principal Topics:* A study of the differentiation of algebraic and transcendental functions, successive differentiation and development of functions, functions of two variables, tangents, normals, and asymptotes, and application of the derivative in mechanics. (*The Calculus*—Granville, Smith, Longley.)

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|------------|-------------|-------------|------------|
| MR. MARTIN | MR. HUNTER  | MR. SHELDON | MR. BURTON |
|            | MR. EDWARDS | MR. COKER   |            |

MATH. 22—INTEGRAL CALCULUS—Semester 2 (5 and 0) 5 cr.

*Prerequisite:* Mathematics 21.

*Purpose:* To make the student proficient in solving the many problems that arise in this subject, especially those arising in the various branches of engineering. *Principal Topics:* Elementary forms of integration, integration of rational fractions, the definite integral, successive reductions, integration of two variables, geometric applications, multiple in-

tegrals, and practical problems arising in engineering subjects. (*The Calculus*—Granville, Smith, Longley.)

MR. MARTIN      MR. HUNTER      MR. SHELDON      MR. BURTON  
MR. EDWARDS      MR. COKER

MATH. 23—DIFFERENTIAL CALCULUS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Mathematics 12.

*Purpose:* To give those students taking the textile course the fundamental principles of differential calculus and some of its important applications. *Principal Topics:* Differentiation of algebraic and transcendental functions, with numerous applications in maxima and minima, curve tracing, and velocity and acceleration.

MR. SHELDON      MR. EDWARDS      MR. COKER      MR. BELL

MATH. 24—INTEGRAL CALCULUS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Mathematics 23.

*Purpose:* To drill the student in fundamental principles and applications of integral calculus. *Principal Topics:* A study of the elementary form of integration, integration of rational fractions, the definite integral, geometric applications, multiple integrals, and practical problems arising in engineering subjects. (*The Calculus*—Granville, Smith, Longley.)

MR. SHELDON      MR. EDWARDS      MR. COKER      MR. BELL

MATH. 25, 26—INDUSTRIAL MATHEMATICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To emphasize the practical side of Arithmetic, Geometry, Algebra, and Trigonometry. *Principal Topics:* Stress is to be placed upon the working of a great many problems from carpentry, the machine shop, construction work, surveying, and allied subjects, in order to obtain proficiency in carrying out a mathematical calculation and achieving the correct result. (*Practical Mathematics*—Palmer.)

MR. BURTON

MATH. 31—ADVANCED CALCULUS—Semester 1 (2 and 0) 2 cr.

Open to juniors and seniors with a good grade in Math. 22.

*Purpose:* To give an understanding of the advanced calculus and its application to problems from physics, chemistry, and engineering. *Prin-*

*Principal Topics:* Double and triple integration, partial differentiation, development of a function in a series, approximations, curve fitting, curve tracing, indeterminate functions, etc.

MR. SHELDON

MATH. 32—DIFFERENTIAL EQUATIONS—Semester 2 (2 and 0) 2 cr.

Open to juniors and seniors with a good grade in Math. 22.

*Purpose:* To give the student a working knowledge of the methods used to solve the elementary differential equations of engineering, chemistry, and physics. This course is intended for those who expect to do graduate work or who desire a greater knowledge of the methods employed in scientific and engineering problems. *Principal Topics:* Equations of the first order and first degree; linear equations with constant coefficients; certain particular forms of equations. (Kell's *Elementary Differential Equations*.)

MR. SHELDON

### MECHANICAL ENGINEERING

MR. EARLE

|              |             |           |            |             |
|--------------|-------------|-----------|------------|-------------|
| MR. FERNOW   | MR. CURTIS  | MR. SAMS  | MR. SHENK  | MR. FREEMAN |
| MR. MARSHALL | MR. PHILPOT | MR. DOWNS | MR. BRANCH | MR. CHAPMAN |

M. E. 12—FORGE AND FOUNDRY—Semester 1 or 2 (0 and 6) 2 cr.

*Purpose:* To give the student a knowledge of the methods of making iron and steel forgings for use in industry and the methods and practices in the making of ferrous and non-ferrous castings. A study of forge equipment; materials used in forgings; selection of materials; methods of working and treating, inspection, and classification of forgings. Part of the time is devoted to the study of tool steel forgings. A study of materials used in castings, the cupola, moulding sands, cores, patterns, the crucible furnace, the cleaning and inspection of castings. Time is also given to the study of the foundry from an industrial standpoint. Lectures and demonstrations accompany the work.

MR. PHILPOT

M. E. 13—WOODWORK—Semester 1 or 2 (0 and 2) 2/3 cr.

*Purpose:* A course in woodwork planned to familiarize agricultural students with the more common tools used in building and repairing of farm equipment. *Principal Topics:* Reading working drawings, making

out complete bill of materials, getting out rough stock for a job, measuring, laying out lines, squaring up stock, sawing to lines, planing to dimension, making and fastening common joints.

MR. MARSHALL

M. E. 15—WOODWORK—Semester 1 or 2 (0 and 2) 2/3 cr.

*Purpose:* A short course in woodwork consisting of lectures and shop practice for textile students. *Principal Topics:* Hand tools, sharpening tools, planing and squaring to dimensions, construction of common joints, gluing, and clamping.

MR. MARSHALL

M. E. 17—WOODWORK AND PATTERN MAKING—Semester 1 or 2 (0 and 6) 2 cr.

*Purpose:* To give Engineering students a knowledge of the tools and machinery used in woodwork and pattern making. This is accomplished through lectures and shop practice. *Principal Topics:* Hand tools, machine tools on planing and squaring to dimensions, common joints, miscellaneous constructions, gluing and clamping, wood turning and finishing, kinds of wood for various uses, source of supply, determination of types of patterns by the equipment of foundry and machine shop. Allowances and their effect on patterns, tools used, templets, core prints, pattern construction, core box and cores, skeleton patterns. (*Woodwork and Pattern Making*—Marshall.)

MR. MARSHALL

M. E. 21—METALLURGY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* Chemistry 11 and 12; *Suggested:* One year of Physics.

*Purpose:* To give the student an elementary knowledge of the metallurgy of Iron and Steel. *Principal Topics:* A study of ores and their sources; fluxes and heating mediums; the operation of the blast furnace; the open hearth, the Bessemer Converter; the crucible furnace; a study of the various alloys of iron, their production, and use. Some time is given to commercial processes of production. (Text to be selected.)

MR. PHILPOT

M. E. 22—MATERIALS OF ENGINEERING—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To give a brief but complete study of the materials used in Engineering and industry. *Principal Topics:* The sources of materials used in industry; a study of wood, concrete, ferrous alloys, non-ferrous



materials, brick, tile, and other building materials. This course is designed to help the engineer to select the proper material for any given job. (Text to be selected.)

MR. PHILPOT

M. E. 23, 24—MACHINE SHOP—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Trigonometry, Mechanical Drawing.

*Purpose:* To give the student a practical knowledge of machine shop methods from the standpoint of the industrial engineer. *Principal Topics:* General application of bench tools; design, application, and methods employed with the lathe, drill, shaper, planer, milling machine, and grinder; study of highly specialized machinery in speed production work and study; practice in industrial management.

MR. FREEMAN

M. E. 25—ENGINEERING PROBLEMS—Semester 1 or 2 (0 and 3) 1 cr.

*Prerequisites:* Math. 11 and 12.

*Purpose:* To familiarize the student with simple problems of an engineering nature and to review applications of logarithms, trigonometric functions, parabolas, logarithmic plotting, steam tables and use of the slide rule.

MR. SAMS

M. E. 31—MECHANICS (Statics)—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21 and 22; Physics 11 and 12.

*Purpose:* To give the students additional training in analysis. *Principal Topics:* Analytical methods of solution of statically determinate force systems, with application to engineering; study of center of gravity and moment of inertia of areas. (*Applied Mechanics*—Poorman.)

MR. CURTIS      MR. QUATTLEBAUM

M. E. 32—MECHANICS (Kinetics)—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 31.

Continuation of Course M. E. 31.

*Principal Topics:* Study of various types of motion, work, energy, and power, with engineering applications. (*Applied Mechanics*—Poorman.)

MR. CURTIS

M. E. 33—MECHANICAL ENGINEERING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22 or 11, 12.

*Purpose:* A general course to familiarize the student with mechanical equipment and its application to the needs of the civil engineer. *Principal Topics:* Study of fuels, combustion, steam, boilers and auxiliaries, steam engines, gas engines and elementary thermodynamics of the steam and gas cycles.

MR. SHENK

M. E. 33a—MECHANICAL LABORATORY—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Physics 21, 22 or 11, 12.

*Purpose:* Calibration of instruments, tests of fuels, steam engines, and gas engines. *Principal Topics:* Calibration of gauges, study of indicators, tests of coal, lubricating oils, boilers, turbines, steam engines, and gas engines.

MR. SHENK

MR. DOWNS

M. E. 34—MECHANICAL ENGINEERING—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22 or 11, 12.

*Purpose:* A general course to familiarize the student with mechanical equipment and its application to the needs of the textile engineer. *Principal Topics:* Study of fuels, steam boilers, and auxiliaries, steam and gas engines, and elementary thermodynamics of the steam and gas cycles.

MR. SHENK

M. E. 34a—MECHANICAL LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Physics 21, 22 or 11, 12.

*Purpose:* Calibration of instruments, tests of fuels, steam engines, and gas engines. *Principal Topics:* Calibration of gauges, study of indicators, tests of coal, lubricating oils, boilers, turbines, steam engines, and gas engines.

MR. SHENK

MR. DOWNS

M. E. 35—POWER PLANTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math 21, 22.

*Purpose:* A study of mechanical equipment and its application in central station and industrial uses, stress being laid on the thermodynamic

feasibility of its use. *Principal Topics:* Fuels, combustion, steam boilers, boiler room auxiliaries, steam engines, and turbines with their auxiliaries.

MR. EARLE      MR. SAMS

M. E. 35a—MECHANICAL LABORATORY—Semester I (0 and 3) 1 cr.

*Prerequisite:* Physics 23, 24.

*Purpose:* To familiarize the student with the instruments used and method of making friction tests on engines. *Principal Topics:* Calibration of gauges, thermometers, study of indicators, analyses of coal gas, lubricating oils, and simple engine tests.

MR. SHENK      MR. DOWNS

M. E. 36—THERMODYNAMICS—Semester I (3 and 0) 3 cr.

*Prerequisite:* M. E. 35.

*Purpose:* A thorough study of the thermodynamics of steam, air heat, and refrigeration cycles. *Principal Topics:* Thermodynamic principles and definitions, properties and processes for gases, cycles of heat engines using gas, properties and thermodynamic processes of vapors, vapor cycles, flow of fluids, thermodynamics of refrigeration and compressed air cycles.

MR. EARLE      MR. SAMS

M. E. 36a—MECHANICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Physics 21, 22.

*Purpose:* A continuation of M. E. 35a. *Principal Topics:* Friction tests and economy tests of steam and gas engines.

MR. SHENK      MR. DOWNS

M. E. 36b—MECHANICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Physics 21, 22.

*Purpose:* To familiarize the student with mechanical equipment and the methods used in testing it. *Principal Topics:* Calibration of instruments, analyses of coal and lubricating oils, simple tests on steam and gas engines.

MR. SHENK      MR. DOWNS

M. E. 38—INDUSTRIAL ENGINEERING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 23, 24.

*Purpose:* To give the student a practical knowledge of the organization, management, and operation of the industrial plant. *Principal Topics:* Basic principles, design of the plant, organizing the company. Executive control, operating methods.

MR. FREEMAN

M. E. 41—POWER PLANTS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36, 35a, 36a.

*Purpose:* To study the engineering of power plants. *Principal Topics:* The design and operating characteristics of power plants and of the individual units which make up the power plant, including the economics; steam, hydro, and Diesel plants.

MR. SHENK

M. E. 41a—POWER PLANT LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* To put into practice the theory covered in M. E. 41. *Principal Topics:* Tests of turbines, engines, pumps, compressors, boilers, blowers, etc., (with formal written reports).

MR. SAMS

M. E. 42—HYDRAULICS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 32.

*Purpose:* To familiarize students with forces exerted by water and the flow of water. *Principal Topics:* Theoretical study of pressure measurement, hydrostatic pressures, discharge measuring devices, flow in pipes and open channels; brief consideration of hydrodynamics, hydraulic turbines, and hydraulic power plants. (*Hydraulics*—Daugherty.)

MR. CURTIS



M. E. 42a.—HYDRAULIC LABORATORY—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

To accompany M. E. 42.

*Purpose:* Experimental illustration by students of certain devices and principles studied in M. E. 42; also a limited number of exercises on testing of structural materials.

MR. CURTIS

M. E. 42.5—HYDRAULICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 32.

An abbreviated form of M. E. 42 without laboratory.

MR. CURTIS

M. E. 43—POWER PLANTS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 35, 36.

The same as M. E. 41, but more complete and detailed. (*Power Plant Engineering*—F. T. Morse.)

MR. FERNOW

M. E. 43a—POWER PLANT LABORATORY—Semester 1 (0 and 4)  $1\frac{1}{3}$  cr.

*Prerequisite:* M. E. 35a, 36a.

An amplification of M. E. 41a. (No text.)

MR. FERNOW

M. E. 44—POWER PLANTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 43.

A continuation of M. E. 43. (*Power Plant Engineering*—F. T. Morse.)

MR. FERNOW

M. E. 44a—POWER PLANT LABORATORY—Semester 2 (0 and 4)  $1\frac{1}{3}$  cr.

A continuation of M. E. 43a. (No text.)

MR. FERNOW

M. E. 45—GAS ENGINES—Semester I (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* A study of the thermodynamics, construction, and design of internal combustion engines. *Principal Topics:* Theoretical cycles, engine performance, two and four stroke cycles, fuels, combustion, cooling, temperature effects, flywheels, governors, vibration and balancing, engine design.

MR. SHENK

M. E. 45a—GAS ENGINE DESIGN—Semester I (0 and 3) 1 cr.

*Prerequisite:* Drawing 26, M. E. 35, 36.

*Purpose:* The design and layout of an internal combustion engine. *Principal Topics:* To design and make an assembly drawing of an internal combustion engine.

MR. FERNOW

M. E. 46—STEAM TURBINES—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* A study of the principles of operation, construction, and design of the steam turbine. *Principal Topics:* Nozzle design, blade design, staging, governing, economy, etc.

MR. EARLE

M. E. 46a—STEAM TURBINE DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26; M. E. 35, 36. Registration in M. E. 46.

*Purpose:* To design and lay out various parts of the steam turbine. *Principal Topics:* Design of nozzle and blading, including assembly and general layout of turbine.

M. E. 47—HEATING AND VENTILATION—Semester I (2 and 0) 2 cr.

*Prerequisite:* M. E. 35.

*Purpose:* To teach the rudiments of central heating system design and construction. *Principal Topics:* Optimum air conditions, heat loss determination, warm air systems, hot water systems, steam, vapor, and vacuum systems; fuels and fuel storage.

MR. SHENK

M. E. 47a—HEATING AND VENTILATION DESIGN—Semester 1 (0 and 3)  
1 cr.

*Purpose:* To give practical application to the principles of M. E. 47.  
*Principal Topics:* The design of three heating systems—one for a residence, one for a school building, and another for an industrial plant.

MR. SHENK

M. E. 48—HEATING AND VENTILATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 47.

*Purpose:* To teach the rudiments of air conditioning. *Principal Topics:* Physiological effects of air conditioning requirements, ventilation equipment, ventilation systems, application of automatic control; industrial exhaust systems.

MR. SHENK

M. E. 48a—HEATING AND VENTILATION DESIGN—Semester 2 (0 and 3)  
1 cr.

*Purpose:* To provide practical application of the principles of air conditioning systems. *Principal Topics:* The design of three air conditioning systems: one commercial, one industrial, and one for a hospital.

MR. SHENK

M. E. 49—MECHANICS OF MATERIALS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 31.

*Purpose:* To acquaint students with certain physical constants and stresses in structural members and machine parts. *Principal Topics:* Deformation and stress; torsion; riveted joints; supports, flexure and deflection of a beam; combined stress in short blocks; columns. (*Strength of Materials*—Boyd.)

MR. CURTIS      MR. QUATTLEBAUM

M. E. 50—AERODYNAMICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 31 and approval of instructor.

*Purpose:* To study the forces acting on a plane in flight. *Principal Topics:* History of aviation, aerodynamic theory as applied to airplane design, including calculations of performance and the study of stability and control.

M. E. 51—REFRIGERATION—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35.

*Purpose:* To teach the application of thermodynamic principles to practical problems in refrigeration. *Principal Topics:* Thermodynamics of refrigeration, heat transfer through building materials and insulation, refrigeration requirements in ice making, meat packing, and in creamery, cold storage and household refrigeration machinery and systems; some economic factors of refrigeration.

MR. SHENK

### MILITARY SCIENCE

COLONEL C. W. WEEKS

MAJOR A. H. DUMAS

SERGEANT H. J. WILKINSON

MAJOR J. P. GAMMON

SERGEANT K. R. HELTON

MAJOR R. F. WALTHOUR

SERGEANT H. S. HEATH

MAJOR G. D. HUFFORD

SERGEANT O. A. DEMOTT

MAJOR D. E. BARNETT

M. S. 11, 12—MILITARY SCIENCE AND TACTICS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To instill discipline and the habit of prompt obedience, and to develop leadership ability, while providing basic military instruction. *Principal Topics:* The course includes study of National Defense Act and ROTC, obligations of citizenship, military history and policy, current international situations, military discipline, courtesy and customs of the service, military sanitation and first aid, military organization, especially of the infantry, the theory and practice of military map reading and rifle marksmanship, instruction in command and leadership, guard duty and ceremonies. Physical drill is also given. (*National Service R. O. T. C. Manual*, Volume 1.)

MAJOR DUMAS

MAJOR BARNETT

MAJOR HUFFORD

M. S. 21, 22—MILITARY SCIENCE AND TACTICS—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* M. S. 12.

*Purpose:* Continuation of disciplinary training, additional stress on leadership, and basic instruction in infantry weapons and tactics of the smaller infantry units. *Principal Topics:* This course covers in theory and practice the automatic rifle, characteristics of infantry weapons, scout-



ing and patrolling, musketry and combat principles of the rifle squad and section; additional military history, command and leadership as would apply to infantry corporals and squad leaders, physical training and instruction in guard duty and ceremonies. (*National Service R. O. T. C. Manual*, Volume II.)

MAJOR GAMMON

M. S. 31, 32—MILITARY SCIENCE—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Purpose:* Training in Discipline and Leadership; physical development and correction of defects in posture. *Principal Topics:* Drill (close and extended order)—command and leadership. Juniors who are not members of the ROTC receive practical instruction in Military Science and Tactics. Members of the ROTC also take M. S. 33 and 34.

|                    |               |                 |
|--------------------|---------------|-----------------|
| COL. WEEKS         | MAJOR HUFFORD | MAJOR WALTHOUR  |
| MAJOR GAMMON       | MAJOR DUMAS   | MAJOR BARNETT   |
| SERGEANT WILKINSON |               | SERGEANT HELTON |
| SERGEANT HEATH     |               | SERGEANT DEMOTT |

M. S. 33, 34—MILITARY SCIENCE AND TACTICS—Semester 1 (2 and 0) 2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. S. 22.

*Purpose:* Theoretical and practical training in weapons and the principles of their combined action, disciplinary and combat training, leadership, and training methods, to qualify as instructors. *Principal Topics:* This course consists of practical and theoretical training in aerial photograph reading; combat principles of rifle, machine gun and howitzer platoons; pistol and pistol marksmanship; rifle and rifle marksmanship; command and leadership as would apply to infantry sergeants, first sergeants and sergeant majors; instruction in guard duty, physical drill and ceremonies, and in the duties of the senior non-commissioned officers. (*National Service R. O. T. C. Manual*, Volume III.)

MAJOR WALTHOUR      MAJOR DUMAS

M. S. 41, 42—MILITARY SCIENCE—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Purpose:* Training in discipline and leadership as applies to the junior officer; physical development and correction of defects of posture. *Principal Topics:* Drill (close and extended order), command and leadership. Seniors who are not members of the ROTC receive practical instruction

in Military Science and Tactics. Members of the ROTC take M. S. 43 and 44.

|                    |               |                 |
|--------------------|---------------|-----------------|
| COL. WEEKS         | MAJOR HUFFORD | MAJOR WALTHOUR  |
| MAJOR GAMMON       | MAJOR DUMAS   | MAJOR BARNETT   |
| SERGEANT WILKINSON |               | SERGEANT HELTON |
| SERGEANT HEATH     |               | SERGEANT DEMOTT |

M. S. 43, 44—MILITARY SCIENCE AND TACTICS—Semester 1 (2 and 0) 2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. S. 34.

*Purpose:* Instruction in command, leadership, and combat principles; development of initiative and responsibility; administration and training methods; qualification as Junior Officers of the Infantry arm. *Principal Topics:* This course comprises a study of Military History and Policy, Military Law, company administration and supply, Officers Reserve Regulations; tanks, anti-aircraft defense, defense against chemical warfare; combat intelligence, Infantry Signal Communications; Combat Training; principles of rifle, machine gun, and howitzer platoons and companies; command and leadership as would apply to infantry lieutenants. (*National Service R. O. T. C. Manual*, Volume IV.)

COLONEL WEEKS      MAJOR BARNETT

## PHYSICS

MR. GODFREY

|           |           |               |          |
|-----------|-----------|---------------|----------|
| MR. BROWN | MR. REED  | MR. HENDRICKS | MR. HUFF |
|           | MR. ORENS | MR. VANDIVERE |          |

PHYSICS 11, 12—GENERAL PHYSICS—Semesters 1 and 2 (3 and 2) 3 2/3 cr.

*Prerequisite:* Algebra, through quadratics; Plane Geometry.

*Purpose:* To give the student a knowledge of the fundamental principles of physics and to apply these principles to numerous problems. *Principal Topics:* The laws of motion of solids and fluids, heat, thermometry, the principles of electricity, magnetism, sound, and light.

MR. GODFREY   MR. HENDRICKS   MR. HUFF   MR. ORENS   MR. VANDIVERE

PHYSICS 13, 14—GENERAL PHYSICS—Semesters 1 and 2 (3 and 3)  
4 cr.

*Prerequisite:* Algebra, through quadratics; Plane Geometry.

*Purpose:* To study the fundamental principles of physics and to apply these principles especially to the methods and processes used in the medical profession.

MR. REED

PHYSICS 21, 22—GENERAL PHYSICS—Semesters 1 and 2 (4 and 0) 4 cr.

*Prerequisite:* Mathematics 11 and 12.

*Purpose:* To give the student a knowledge of the fundamental theory of physics and the application of the principles to problems in engineering. *Principal Topics:* Mechanics, dynamics, thermometry, heat, magnetism, electricity, sound, and light.

MR. BROWN

MR. HENDRICKS

MR. HUFF

PHYSICS 23, 24—LABORATORY PHYSICS—Semesters 1 and 2 (0 and 3)  
1 cr.

This course must be taken with Physics 21, 22.

*Purpose:* To study the application of the theory in physical phenomena, acquire skill in observation and manipulation. *Principal Topics:* Measurement of several physical constants in mechanics, heat, and light; study of electrical measurements and instruments.

MR. BROWN

MR. HUFF

MR. HENDRICKS

MR. ORENS

PHYSICS 27—GENERAL PHYSICS—Semester 1 (3 and 2) 3 2/3 cr.

*Purpose:* To study the fundamental principles of Physics as applied to problems in agriculture. *Principal Topics:* Work, power, machines, efficiency, osmosis, surface tension, heat and heat engines, magnetism, electricity, and light.

MR. REED

MR. ORENS

MR. VANDIVERE

PHYSICS 29—GENERAL PHYSICS—Semester 1 or 2 (3 and 4) 4 1/3 cr.

*Purpose:* A short course for students of agriculture with especial reference to the applications of physics. *Principal Topics:* Force, acceleration, power, machines, heat, light, sound, magnetism, and electricity.

MR. ORENS

MR. REED

PHYSICS 31, 32—MODERN PHYSICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Physics 21, 22; *Suggested:* Mathematics 21, 22.

*Purpose:* To give the student a general knowledge of the more recent developments in physics and to familiarize him with the modern methods of investigation. *Principal Topics:* Kinetic theory of gases, electron theory, X-rays, radio activity, atomic structure, theory of quanta, cosmic rays, geophysics, astrophysics, radio, and television. (*Modern Physics*—Jauncey.)

MR. HUFF

PHYSICS 33—DESCRIPTIVE ASTRONOMY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To give a general knowledge of the facts of astronomy and to study the methods of determining latitude and longitude. *Principal Topics:* Coordinate systems and apparent motions, the planets, the sun and moon, properties of the stars. (*Introduction to Astronomy*—Baker.)

MR. GODFREY

PHYSICS 34—MAGNETISM AND ELECTRICITY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Physics 11 and 12.

*Purpose:* A course primarily for students in Agricultural Engineering. *Principal Topics:* The electric and magnetic field, potential, transformers, properties of transmission lines, storage batteries, properties of vacuum tubes.

MR. REED

PHYSICS 35—MECHANICS AND PROPERTIES OF MATTER—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* A further study of the mechanical properties of matter. *Principal Topics:* The motion of particles and of rigid bodies, gyroscopes, elasticity, surface tension, the flow of fluids, gravitation.

MR. HUFF



## PHYSICS 36—HEAT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To give the student a thorough knowledge of the fundamental principles of heat measurements. Emphasis is placed on chemical applications. *Principal Topics:* Thermometry, calorimetry, change of state, kinetic theory of gases, elements of thermodynamics.

MR. HENDRICKS

## PHYSICS 37—SOUND AND LIGHT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To study the laws governing the transmission of sound and light. Emphasis is placed on architectural applications. *Principal Topics:* Wave motion; velocity of sound in air and other media; sound in rooms; laws of optics, mirrors, prisms, and lenses; wave nature of light; polarization.

MR. BROWN

## PHYSICS 38—PHOTOGRAPHIC SURVEYING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* C. E. 21, 22.

*Purpose:* To study the use of photography in land surveying and map making.

MR. HUFF

## POULTRY HUSBANDRY

MR. MORGAN

## P. H. 32—FARM AND COMMERCIAL POULTRY PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To study the fundamental principles of poultry production and the factors necessary for profitable flock management as a farm enterprise and a commercial business. *Principal Topics:* The nature and uses of poultry products, scope of the industry and agencies involved; classification of poultry; structure of fowl; fundamentals of flock improvement, culling and judging; incubation, brooding, feeding principles and practices; poultry house construction; disease control and sanitation, and economic aspects of poultry production. (*Poultry Husbandry*—Jull.)

MR. MORGAN

P. H. 41—POULTRY JUDGING AND BREEDING—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Poultry Husbandry 32 and Genetics.

*Purpose:* To give the fundamental principles and practices in judging poultry for production and show, to study the principles of poultry breeding. *Principal Topics:* History and development of culling and judging for production, bases of poultry classification and standard judging, inheritance in poultry and improvement of birds through the application of genetic laws. (*Poultry Breeding*—Jull.)

MR. MORGAN

P. H. 42—POULTRY PRODUCTION AND MANAGEMENT—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Poultry Husbandry 32.

*Purpose:* To give detailed study to incubation and brooding principles and practices, to study the effects of various feeds and rations, study of management practices. *Principal Topics:* Temperature, humidity, and ventilation in relation to incubation; incubator operation; brooding and rearing methods; feeds and rations for baby chicks; growing stock, breeding stock, and laying hens; effects of feeds and rations on the character and quality of poultry products; poultry farm plan and management. (*Research Bulletins and Scientific Literature.*)

MR. MORGAN

## PSYCHOLOGY

MR. BREARLEY

PSYCHOLOGY 35, 36—PSYCHOLOGY FOR TEACHERS—Semesters 1 and 2 (2 and 2) 3 cr. each semester.

*Prerequisite:* Junior standing.

*Purpose:* To acquaint students of education and others with some fundamental characteristics of human behavior. *Principal Topics:* Physiological bases of behavior, mental growth, the emotions and their expression, the learning process, individual differences and their measurement, personality, problem children, abnormal behavior. (*Psychology for Students of Education*—Gates; *Personality, Its Development and Hygiene*—Richmond.)

MR. BREARLEY

PSYCHOLOGY 46—ABNORMAL BEHAVIOR—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Psychology 35.

*Purpose:* To develop a general knowledge of abnormal behavior.

*Principal Topics:* Mental defect, the psychoses and psychoneuroses, psychopathic personalities.

MR. BREARLEY

PSYCHOLOGY 47—SOCIAL PSYCHOLOGY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Psychology 35.

*Purpose:* To study the social behavior of the individual. *Principal*

*Topics:* The development of personality, social stimulation, crowd behavior, pro-social, and anti-social conduct.

MR. BREARLEY

### RELIGION\*

MR. CROUCH

MR. GOODE

RELIGION 21, 22—OLD TESTAMENT—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Sophomores. Others admitted by permission.

*Purpose:* To introduce the student to the Old Testament, its history, inspiration, and interpretation. *Principal Topics:* The books of the Old Testament studied from the standpoint of origin, literary form, and content in their historical setting. Some time will be given to their religious and ethical teachings.

RELIGION 23, 24—LIFE OF CHRIST—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Sophomores. Others admitted by permission.

*Purpose:* To acquaint the students with the facts in the life of Christ in the order of their occurrence. *Principal Topics:* Historical study of the Gospels; their parallelism, the similarity and differences in the four narratives, brief glance at synoptic criticism, authorship and historical value of the Gospel of John, the measure of the importance and influence of facts studied, and a brief analysis of the more important of Christ's discourses. (*A Harmony of the Gospels*—Robertson.)

MR. GOODE

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\*This work is not financed by the College; it is offered as free elective.

RELIGION 31, 32—NEW TESTAMENT OUTLINE—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Juniors. Others admitted by permission.

*Purpose:* To study the beginning and the spread of Christianity during the New Testament period. *Principal Topics:* Conditions in the Roman world at the beginning of the Christian era; those factors which later aided in the spread of the Gospel; a study of the life and works of Jesus Christ, as the Founder of Christianity, according to Matthew's Gospel; the spread of the Gospel as contained in the Acts of the Apostles and the Epistles.

MR. CROUCH

RELIGION 41, 42—ETHICS IN RELIGION—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Seniors. Others admitted by permission.

*Purpose:* To give a general knowledge of the history and development of religious and moral ideals. *Principal Topics:* The nature and scope of conduct, the relationship of man's conduct to his religious loyalties, the inseparable connection between religious and moral ideals. The historical development: Pre-Christian, Greek, Roman, Hebrew; the ethics of Jesus; further development of ethical ideals in the life of the church, modern theories of life.

## SOCIOLOGY

MR. BREARLEY

MR. CROUCH

SOCIOLOGY 31—ELEMENTARY SOCIOLOGY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* Junior standing.

*Purpose:* To give an introduction to sociology and contemporary social problems. *Principal Topics:* Group behavior, the family, population problems, race relations, dependency, crime. (*Introduction to Sociology*—Young.)

MR. BREARLEY

SOCIOLOGY 43—INTERNATIONAL RELATIONS—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Seniors.

*Purpose:* To acquaint the student with current world movements and conditions, so that he may be able to think intelligently on the problems



confronting our own nation. *Principal Topics:* Economics, political and racial problems. (*The Great Powers in World Politics*—Simonds and Emeny.)

MR. CROUCH

SOCIOLOGY 41—CRIMINOLOGY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31.

*Purpose:* To introduce the student to the principal problems of crime and its treatment. *Principal Topics:* The nature and sources of crime, the administration of criminal justice, systems of penology.

MR. BREARLEY

SOCIOLOGY 42—THE FAMILY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

*Purpose:* To assist the student in developing perspective concerning the problems of marriage and family life. *Principal Topics:* History of the family, social problems of the family, conservation of the family, sources of failure and success in marriage.

MR. BREARLEY

SOCIOLOGY 44—ADVANCED SOCIOLOGY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

The purpose and topic of this course will be adjusted to the interests of the class and will vary from year to year.

MR. BREARLEY

### TEXTILE CHEMISTRY AND DYEING

MR. LINDSAY

MR. HUCKABEE

MR. HICKS

T. C. 31 and 32—TEXTILE CHEMISTRY—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Chemistry 12.

*Purpose:* This course is designed to give the student the general knowledge of the subject that is essential to the management of any modern textile plant. *Principal Topics:* A general introduction into the theory of textile chemistry. Particular attention is given to the textile fibers, dyestuffs, and organic compounds used in the textile and related industries. (*Introduction to Organic Chemistry*—Lowy and Harrow; *T. C. Mimeograph Notes*.)

MR. HUCKABEE

MR. HICKS

T. C. 33 and 34—TECHNICAL WRITING—Semesters 1 and 2 (1 and 0) 1 cr.

*Purpose:* A course designed to familiarize the student with the technical literature. *Principal Topics:* Patents, particularly in the field of chemistry as applied to textiles, dyes, dyeing, finishing, rayon, and related subjects; literature searches; abstracting of technical literature and patents; report writing; technical nomenclature, etc.

MR. LINDSAY

T. C. 35 and 38—TEXTILE CHEMISTRY—Semesters 1 and 2 (4 and 3) 5 cr.

*Prerequisite:* Chemistry 12, 23 and 24.

*Purpose:* This course is designed particularly for textile chemists in that it covers the theories of formation and chemical behavior of the products used in bleaching, dyeing, and finishing. *Principal Topics:* A systematic and thorough course emphasizing especially the more complex compounds used in the textile industry such as carbohydrates (cellulose and starches); proteins (silk and wool); azo; anthraquinone and other similar compounds (dyestuffs); enzymes and ferments (desizing products).

MR. HUCKABEE

T. C. 39 and 40—DYEING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Purpose:* A laboratory course in dyeing with occasional lectures, intended primarily for students specializing in Weaving and Design or Yarn Manufacture. *Principal Topics:* The methods of bleaching and dyeing the different types of fibers are taught through laboratory experiments. Color-matching and evaluation of dyestuffs are considered briefly. (*T. C. Mimeograph Notes.*)

MR. LINDSAY

T. C. 41 and 42—TEXTILE CHEMISTRY AND DYEING—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Textile Chemistry 32, 38.

*Purpose:* This course is designed to give Textile Engineers a general knowledge of the subject. *Principal Topics:* A general study of the chemistry of the textile fibers, dyestuffs and their application, detergents and scouring, bleaching, sizing preparation and its application, desizing, mercerizing, finishing, etc. While covering all of the fibers, particular attention is given to cotton. (*Dyeing with Coal Tar Dyestuffs*—Whittaker; *T. C. Mimeograph Notes.*)

MR. LINDSAY

MR. HICKS

T. C. 41.5 and 42.5—TEXTILE CHEMISTRY AND DYEING—Semesters 1 and 2 (4 and 4) 5 1/3 cr.

*Prerequisite:* Textile Chemistry 38 or Chemistry 36.

*Purpose:* An advanced course in the subject for those desiring to become textile chemists or dyers. *Principal Topics:* This course comprises a full and complete study of the textile fibers, the action of the various reagents upon them, and the various processes through which they pass in the different stages of textile manufacture. Application of dyes to the different classes of textile fibers is fully covered in the laboratory by the usual dyepot experiments, and also by larger scale dyeings. (*Dyeing with Coal Tar Dyestuffs*—Whittaker; *The Application of Dyestuffs*—Matthews; T. C. *Mimeograph Notes*.)

MR. LINDSAY

T. C. 43—CELLULOSE CHEMISTRY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Textile Chemistry 35.

*Purpose:* To give the student a thorough knowledge of the latest theories regarding the constitution of our most common and important textile fiber. *Principal Topics:* A study of the chemistry of cellulose based upon the latest research. Particular attention is paid to the preparation of wood pulps for the manufacture of rayon and paper. (*Chemistry of Cellulose and Wood*—Schorger.)

MR. LINDSAY

T. C. 45 and 46—ANALYSIS OF TEXTILE MATERIALS—Semesters 1 and 2 (1 and 3) 2 cr.

*Prerequisite:* Chemistry 24 and Textile Chemistry 38.

*Purpose:* To prepare the student to make analyses pertaining to the materials used in the textile and related industries. *Principal Topics:* The technical analysis of the various chemicals and materials used in the textile industry, including yarns and fabrics, water, soap, sizes, finishes, oils, etc., and hydrogen ion determinations by the colorimetric and potentiometric methods. (*Technical Methods of Analysis*—Griffin.)

MR. HICKS

T. C. 47 or 46.5—MICROSCOPY OF TEXTILE MATERIALS AND CHEMICALS—Semester 1 or 2 (1 and 1) 1 1/3 cr.

*Purpose:* This course is especially planned to enable the student to utilize this valuable means of investigation in the textile and related industries. *Principal Topics:* The preparation of the various materials used

in the textile industry for microscopic examination, photo-micrography, micrometry, etc. (*Textiles and the Microscope*—Schwarz; *T. C. Mimeograph Notes*.)

MR. HICKS

MR. HUCKABEE

T. C. 48—SYNTHETIC FIBER CHEMISTRY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Cellulose Chemistry.

*Purpose:* To equip the student with the knowledge essential to the undertaking of the work in the synthetic fiber industry. *Principal Topics:* A study of the chemistry and mechanics involved in the manufacture of the various synthetic fibers; the chemical, physical and textile properties of the various products, etc. (*Artificial Silk*—Reinthalder and Rowe; *T. C. Mimeograph Notes*.)

MR. LINDSAY

T. C. 50 and 51—THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To determine the ability of the student to initiate and satisfactorily complete an advanced problem generally related to some work he wishes to pursue after graduation. *Principal Topics:* An investigation of an assigned problem relating to textile chemistry, dyes or dyeing, including the preparation of a written report of this work. When the student has already decided upon some work which he will follow after graduation, an effort is made to assign the investigation to this or a closely related subject.

MR. LINDSAY

*Division Rooms and Equipment.*—All work in textile chemistry and dyeing is conducted in the class room laboratory and dye-house, both especially provided for this purpose.

Besides the usual dyeing laboratory equipment, the dye house contains a hydroextractor, Franklin process and Columbus package dyeing machines (one of which is also suitable for bleaching purposes), a Hussong skein dyeing machine, a jigger, a printing machine, a Permutit water softening system, fadeometer, spectroscope, potentiometric and colorimetric hydrogen ion concentration determination equipment, special rubber-lined rayon dyeing equipment, spray printing equipment, launder-o-meter, Rodney Hunt kier; Rodney Hunt piece goods dyeing machine; monel metal tanks; Strickland monel metal hosiery dyeing machine; Philadelphia Metal Drying Forms for hosiery, etc.



## VETERINARY SCIENCE

MR. FEELEY

VET. SCI. 41—ANATOMY AND PHYSIOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give agricultural students a general knowledge of anatomy and physiology of farm animals. *Principal Topics:* Physiology of digestion, chemical and physical processes of digestion and absorption, common diseases, farm sanitation, and first aid treatment. (*Veterinary Science*—Hadley.)

MR. FEELEY

VET. SC. 42—DISEASES OF ANIMALS—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give agricultural students instruction in the recognition, causes, and treatment of the diseases of farm animals. *Principal Topics:* The principles of etiology, pathology, diagnosis, symptoms, and treatment of infectious and non-infectious diseases.

MR. FEELEY

## VOCATIONAL EDUCATION

MR. WASHINGTON

|              |               |              |            |
|--------------|---------------|--------------|------------|
| MR. CRANDALL | MR. MONROE    | MR. BOWEN    | MR. BOOKER |
| MR. TATE     | MR. STRIBLING | MR. JOHNSON  | MR. BROCK  |
| MR. WHITE    | MR. KIRKLEY   | MR. KIRCHNER |            |
|              | MR. ALEXANDER |              |            |

VOC. ED. 11—ORIENTATION—Semester 1 (1 and 0) 1 cr.

*Purpose:* To aid the freshman in adjusting himself to the College environment and his course of study.

MR. WASHINGTON    MR. CRANDALL    MR. BOOKER    MR. TATE

VOC. ED. 21—INTRODUCTION TO EDUCATION—Semester 1 (2 and 0) 2 cr.

*Purpose:* To develop a broad concept of education and a comprehensive view of the scope and opportunities in teaching, to set up desirable objectives for education and to develop a desire for professional growth. *Principal Topics:* Scope, meaning, and significance of education, more significant aspects of teaching, teaching and learning principles, efficient study procedure, professional education's contributions to the successful work of the teacher, teacher personality traits, individual differences and teaching, outcomes of education, status of teaching profession, major problems of education.

MR. BROCK

VOC. ED. 22—INTRODUCTION TO VOCATIONAL EDUCATION—Semester 2 (1 and 0) 1 cr.

*Purpose:* To introduce the student to the field of education as a whole and to develop a background for further educational training. *Principal Topics:* The place of vocational education in the educational system, the subject-matter fields related to the vocation for which the student is planning to become a teacher, the place of the teacher in the community.

MR. CRANDALL      MR. BROCK

VOC. ED. 28—OBSERVATION OF INDUSTRIAL TEACHING—Semester 2 (0 and 3) 1 cr.

*Purpose:* To give the student a practical acquaintance with the duties of the industrial arts teacher.

MR. TATE      MR. BROCK

VOC. ED. 30—EDUCATIONAL PSYCHOLOGY—Semester 2 (3 and 0) 3 cr.

*Purpose:* To train students to better meet the problems encountered in schools. *Principal Topics:* The learning process, individual differences as affecting educational and vocational performances, the project method of teaching, securing and maintaining interest, discipline, program planning, selecting teaching units, job analysis, developing lesson plans, grading, relation of the teacher to local school authorities, supervisors, and other school officials. The psychology applied to conference leading, adult teaching, and the interview, with special emphasis on vocational implications.

MR. STRIBLING

VOC. ED. 31—INTRODUCTION TO AGRICULTURAL EDUCATION—Semester 1 (1 and 6) 3 cr.

*Purpose:* To familiarize students with the work of teachers of agriculture in local communities. *Principal Topics:* Students observe and report on the work of all-day, part-time, evening and day unit classes, community and promotional work, equipment and general organization of a program in agricultural education for a local community. Each trainee develops several units of teaching content and instructs classes in vocational agriculture. Students spend two afternoons each week in the practice department.

MR. CRANDALL   MR. MONROE   MR. STRIBLING   MR. JOHNSON   MR. BOWEN

Voc. Ed. 31.6, 32.6—SPECIAL METHODS IN INDUSTRIAL ARTS—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student fundamental skills, knowledges, and shop content in woodwork, to give the special technique and method of approach in teaching shop subjects in high schools. *Principal Topics:* Project construction, finishing, construction, and care of shop tools and equipment, materials, characteristics of woods, fasteners, finishing materials, glues, the shop budget. These topics are taken up from the standpoint of the most progressive methods of shop teaching in industrial arts.

MR. MARSHALL

Voc. Ed. 32—ORGANIZATION OF COURSES OF STUDY—Semester 2 (3 and 0) 3 cr.

*Purpose:* To have students build industrial courses based upon specific analyses of the jobs to be taught, and to have students use these courses in teaching. *Principal Topics:* Purpose, scope, and use of job analyses in writing courses of study, writing and using instruction sheets for teaching, constructing achievement tests in industrial subjects. The student is required to select some industrial subject and write a course of study based upon analyses of jobs covered under that subject. Prospective teachers are urged to select subjects which they expect to teach later.

MR. BROCK

\*Voc. Ed. 33—FUNDAMENTALS OF PHYSICAL EDUCATION—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give the student a knowledge of the basic principles underlying the promotion of an adequate program of physical education. *Principal Topics:* The place of physical education in the curriculum of the modern school. The relation of physical education to the scheme of general education. The part that anatomy, physiology, hygiene, sociology, psychology and like sciences have to do with a successful physical education program. Methods of motivating physical education are stressed.

MR. KIRCHNER

Voc. Ed. 33.5, 34.5—ART METAL WORK—Semesters 1 and 2, 1—3 cr.

*Purpose:* This course is primarily for industrial education students and others who plan to teach art metal courses in public schools and who would like to become acquainted with the making of plates, letter openers,

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\*Voc. Ed. 33, 49.5, 58, and 64 are courses in Physical Education; other courses may also be offered in this field.

trays, bowls, and metal-working tools. To study methods of teaching and methods of introducing art metal work in the public schools. *Principal Topics:* The obtaining of tools and materials, organizing the class, methods of teaching, making wooden mallets, forming blocks, actual making of objects, teaching art metal work to selected students.

MR. BROCK

VOC. ED. 35—PSYCHOLOGY FOR TEACHERS—Semester I (2 and 2) 3 cr.

(See Psychology 35.)

*Purpose:* To acquaint students of education and others with some fundamental characteristics of human behavior. *Principal Topics:* Physiological bases of behavior, mental growth, the emotions and their expression, the learning process, individual differences and their measurement, personality, problem children, abnormal behavior. (*Psychology for Students of Education*—Gates; *Personality, Its Development and Hygiene*—Richmond.)

MR. BREARLEY

VOC. ED. 37—RURAL AND VILLAGE SCHOOL PROBLEMS—Semester I (3 and 0) 3 cr.

*Purpose:* To introduce the student to the problems facing a teacher in rural and small town schools, and from this to determine the qualifications necessary for a successful teacher. *Principal Topics:* Correlation of the curriculum with the desirable social trends in agricultural and industrial communities, the summer session, transportation problems, special qualifications of teachers.

MR. MONROE

VOC. ED. 38—TEACHING OF DRAWING—Semester 2 (2 and 2) 3 cr.

*Prerequisite:* Drawing 14 (or equivalent).

*Purpose:* To train for the teaching of drawing and the understanding of some of the elements of the subject. *Principal Topics:* Psychology as applied to the subject, planning the layout of suitable course to meet group needs, some of the arts and sciences used in drawing, fitness of teacher and student in class work, vocational direction in this field, methods, reading of drawings, grades, and grade methods. (Reference texts used as assigned.)

MR. KLUGH



VOC. ED. 39—PRINCIPLES OF SECONDARY EDUCATION—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give prospective teachers the results of experience, research, and thinking in education which form the basis of sound practice in teaching high school subjects. *Principal Topics:* Characteristics and need of education, characteristics of learning, knowledge and thinking ability, motor, moral, and appreciative reactions, choice of subjects and activities, influence of age, maturity, and individual differences, methods of teaching, appraising results of education.

MR. TATE

VOC. ED. 40—PRACTICE TEACHING IN AGRICULTURE—Semester 2 (0 and 15) 5 cr.

*Purpose:* To give the students an opportunity to discharge the duties and responsibilities of an agricultural teacher in a local community. *Principal Topics:* Students participate in all-day, part-time, evening-class, and day-unit work. Habits, attitudes, ability to assume responsibility, promptness, general reliability, and degree of skill developed are some of the factors considered in rating the student as a prospective teacher. Students spend five afternoons a week in the practice schools. The opening date, daily schedule and general program of the high school may determine registration and participation in this course.

MR. CRANDALL MR. MONROE MR. STRIBLING MR. JOHNSON MR. BOWEN

VOC. ED. 41—PRINCIPLES OF VOCATIONAL EDUCATION—Semester 1 (1 and 9) 4 cr.

*Purpose:* To instruct students in principles and methods in connection with practice teaching. *Principal Topics:* Emphasis is placed on the participation of students in all possible phases of the work of a teacher of agriculture in a local community. Students organize and teach all-day, part-time, evening, and day-unit classes. Students are held responsible for definite phases of community and promotional work.

MR. CRANDALL MR. WHITE MR. MONROE MR. STRIBLING MR. BOWEN

VOC. ED. 42—METHODS IN AGRICULTURAL EDUCATION—Semester 2 (3 and 0) 3 cr.

*Purpose:* Problems and difficulties that arise in practice teaching receive special emphasis in this course. *Principal Topics:* A thorough survey is made of teaching content for all-day, part-time and evening-class students. Students make careful analyses of conditions and practices of farming in a local community as a source of teaching content. Other

sources of teaching content which receive emphasis in this course are data from experiment stations and the United States Department of Agriculture.

MR. CRANDALL

VOC. ED. 43 and 44—PRACTICE TEACHING IN INDUSTRIAL SUBJECTS—Semesters 1 and 2 (0 and 10) 5 cr.

*Purpose:* To develop through supervised practice-teaching those techniques, attitudes, and principles universally valuable in teaching, to give prospective teachers experience in handling problems in the school. *Principal Topics:* Organizing class, selection of teaching materials, planning work, discipline, teaching methods, examinations and grading, co-operation with school personnel, records and reports, inventories, and up-keep of equipment. Each student teacher periodically is given an opportunity to teach some industrial subject. During his teaching period he is responsible for his class just as if he were an employed teacher of that subject, including conforming to the high school schedule and registration period.

MR. TATE                      MR. BROCK

VOC. ED. 45—TEACHING SCIENCE—Semester 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with the objectives and methods of science instruction in public schools. *Principal Topics:* Project method of teaching science, aims and values of science instruction, teaching content, classroom procedure, and relationship of science instruction to the general and vocational courses and to administrative procedures.

VOC. ED. 46—TECHNIQUE OF TEACHING—Semester 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the prospective teacher with the most significant problems in industrial teaching, to propose solutions for those problems consistent with most authoritative information available. *Principal Topics:* Shop planning, organizing classes, selection of equipment and tools, ways of securing materials and supplies for school shop, introducing a shop program, financing a shop program, advertising a shop program, methods of teaching, and discipline.

MR. TATE

VOC. ED. 47—HISTORY AND PHILOSOPHY OF EDUCATION—Semester 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the historical development of education and to develop an appreciation for the contributions of the various leaders in education. *Principal Topics:* Education in the Orient, early European education, the contributions of Plato, Luther, Locke,

Rousseau, Spencer, Herbart, Dewey, and others. The development of public education in South Carolina, special attention given to the social significance of the school.

MR. WASHINGTON

VOC. ED. 48—TEACHING OF PHYSICS AND MATHEMATICS—Semester 2 (3 and 0) 3 cr.

*Purpose:* To train the prospective teacher in course-building and the methods of teaching as applied especially to mathematics and physics. *Principal Topics:* The purpose of physics and mathematics in the high school course, project planning, lesson planning, analysis of adopted textbooks, supplementary teaching materials and equipment, conduct of the recitation, grading, class management, and discipline.

VOC. ED. 49.5—LEADERSHIP IN COMMUNITY RECREATION—Semester 1 or 2 (2 and 3) 3 cr.

*Purpose:* To train leaders in the recreation field. *Principal Topics:* The aims, objectives and philosophy of the recreation movement. Historical background. Planning programs to meet community needs in the rapidly expanding leisure. A survey of organizations dealing with recreational problems. Students are given the opportunity to get practical experience in leadership by conducting social recreation activities and game programs in adjacent communities.

MR. KIRCHNER

VOC. ED. 50—PROBLEMS IN ADVANCED WOODWORK FOR TEACHERS—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

MR. MARSHALL

VOC. ED. 51—PRACTICE TEACHING IN HIGH SCHOOL SUBJECTS—Semesters 1 and 2 (0 and 6) 3 cr.

*Purpose:* To give supervised practice in teaching general science, chemistry, mathematics, civics, etc., in order to develop skill in the best methods of teaching these subjects. (Enrollment is by individual approval and may be dependent upon observing the high school schedule including registration, etc.) *Principal Topics:* Selection of subject matter, planning work, methods of teaching, examinations, grading, discipline, co-operation with school personnel, records, and reports. When possible the student teacher is allowed to teach his subject of greatest interest. During his teaching period he is under close supervision and is held fully responsible for his class.

MR. TATE

VOC. ED. 53—PRACTICE TEACHING IN EVENING CLASSES—Semesters 1 and 2 (0 and 2) 1 cr.

*Purpose:* To give the prospective industrial teacher practice in organizing trade and industrial evening-classes, organization of suitable instructional material and the actual teaching of such classes. *Principal Topics:* Organization of classes, selection of teaching material, planning work, cooperation with industry, reports and records, and follow-up.

MR. TATE                      MR. BROCK

VOC. ED. 55—COORDINATION METHODS IN VOCATIONAL EDUCATION—Semester 1 (1 and 3) 2 cr.

*Purpose:* To give prospective coordinators of Diversified Occupations programs and other types of part-time education the method of coordinating such programs. *Principal Topics:* Cooperative Vocational Education, duties and responsibilities of coordinators, supervision, schedule making, teaching related subject matter, records and reports. The Smith-Hughes and George-Dean Vocation Acts, as they concern Cooperative Vocational Education.

MR. BOOKER

VOC. ED. 56—EDUCATIONAL AND VOCATIONAL GUIDANCE—Semester 2 (3 and 0) 3 cr.

*Purpose:* Study of meaning, purpose, and aim of guidance, methods of investigation in guidance, methods of guiding students, results of guidance. Each student will prepare a program of guidance suitable for a typical school system. *Principal Topics:* Need, meaning, basic assumptions, aims, and objectives of guidance; general methods of investigation; use of school records, exploratory activities, tests, estimates of personality traits, and self-analysis as methods of studying the individual; methods of securing and assembling facts about courses of study in educational instruction; methods of study of occupations; guidance of students in choice of occupation; choice of training, and organization of guidance.

MR. TATE

VOC. ED. 58—HIGH SCHOOL COACHING—Semester 2 (2 and 0) 2 cr.

*Purpose:* To train prospective high school coaches in the fundamentals of developing individuals and teams. *Principal Topics:* Emphasis is given to educational value of clean sports and particular attention is given to the physical condition of the student body, conditioning and training for competitive participation in football, basketball, and baseball. Field laboratory work may be required in addition to the class work.

MR. NEELY



VOC. ED. 59—ADMINISTRATION OF VOCATIONAL AND OTHER SCHOOLS—  
Semester 1 (2 and 0) 2 cr.

*Purpose:* To acquaint the prospective teacher with modern administration technique in public education. *Principal Topics:* The public school curriculum, the administration of vocational departments, the duties of the principal and his relationship to the school board, etc. Attention will also be given to certain legal phases of school administration.

MR. WASHINGTON

VOC. ED. 61 AND 62—INDUSTRIAL LABORATORY—Semesters 1 and 2 (0 and 6) 2 cr.

*Purpose:* To develop an industrial background for the teacher who is to have charge of a comprehensive industrial program in a community where an effort is being made to train young men and adult industrial workers in the individual skills of productive employment in industrial occupations. This will include woodworking, painting, metalworking, drafting, etc., and also the interplay of skills between these as adapted to teaching situations. *Principal Topics:* Planning, investigating, and determining the requirements in the way of materials, time and equipment, and executing the plans of such industrial projects as (1) forms, objects and structures in concrete, (2) economic utilization of various woods and lumber, (3) construction of objects of economic usefulness in metal, (4) skills in pipefitting and plumbing, (5) determining the economy of various electrical appliances, (6) economical repair of electrical appliances, etc. The student will be required to select his projects, furnish materials, make preliminary plans and sketches for them, and have these approved by the instructor. At the completion of each project in the laboratory the student will be carefully examined concerning the work he has done.

MR. TATE      MR. BROCK

VOC. ED. 64—SPORTS ORGANIZATION AND PROMOTION—Semester 2 (2 and 3) 3 cr.

*Purpose:* To aid the student in organizing and promoting wholesome sports appropriate for schools and colleges. *Principal Topics:* The content of a comprehensive sports program; sports as educational activities; the value of sports from the avocational angle in the present social order; the intramural program, the interscholastic program, and the playground program. Special attention is given to developing organizations that promote appropriate recreation for all, rather than the few.

MR. KIRCHNER

VOC. ED. 100—SPECIAL PROBLEMS IN EDUCATION—Semesters 1 and 2  
1-5 cr. (enrollment by individual permission.)

*Purpose:* To provide an opportunity for persons needing special assistance in meeting emergency or unusual situations in educational work.

Students who enter this course are required to provide their own transportation in connection with field work.

### WEAVING AND DESIGNING

MR. McKENNA

MR. CARTEE

MR. TARRANT

MR. BARTON

MR. WALTERS

MR. NEWSOM

W. D. 12—TEXTILES—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

*Purpose:* To give the student a general background for the work which follows, and enable him to see the industry as a whole. *Principal Topics:* Elementary studies of weaving, designing, warping, and slashing. (*Beam Warpers, Slashers, Northrup looms*—International Textbook Company; *W. D. Mimeograph Notes.*)

MR. NEWSOM

W. D. 21—ELEMENTARY DESIGN—Semester 1 (2 and 0) 2 cr.

*Suggested Preliminary Course:* W. D. 12.

*Purpose:* To give thorough instruction in the construction of the fundamental weaves and their derivatives. *Principal Topics:* Plain, twill, and sateen weaves, derivatives, harness and chain drafts, principles of color harmony. (*Design Textbooks*—International Textbook Company; *W. D. Mimeograph Notes.*)

MR. TARRANT

W. D. 22—ADVANCED DESIGN—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 21.

*Purpose:* To instruct the student in constructing weaves for the more intricately woven fabrics. *Principal Topics:* Extra warp and filling for weight and figure, double cloths, velvets, plushes, corduroys, and turkish toweling. (*Design Textbooks*—International Textbook Company; *W. D. Mimeograph Notes.*)

MR. McKENNA

MR. TARRANT

W. D. 23—WEAVING—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To give the student thorough training in the operation, construction, and adjustment of loom mechanisms. *Principal Topics:* Analytical study of the loom, the shedding motion, design of shedding cams, the picking motion, the beating-up and the take-up motions; take-up calculations, let-off mechanisms, the filling stop motion, batteries, automatic loom adjustment, and practical loom fixing. (*W. D. Mimeograph Notes.*)

MR. BARTON

MR. WALTERS

W. D. 24—WEAVING—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* W. D. 23.

*Purpose:* To give the student instruction in fabric production on the more advanced types of looms with special cams and attachments. *Principal Topics:* Mechanical and electrical warp stop motions, filling feelers, thread cutters, shuttle change mechanisms, selvage and side cam motions, loom fixing. (*W. D. Mimeograph Notes.*)

MR. BARTON

MR. TARRANT

\*W. D. 25—WEAVE ROOM PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To apply the fundamental principles of mathematics to weave room problems. *Principal Topics:* Mechanical calculations of the loom, the theoretical and practical production of the loom, yarn, beam, and fabric calculations, loom equipment and slasher problems. (*Weave Room Calculations—Clark; W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 26—WEAVE ROOM PROBLEMS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To apply the fundamental principles of mathematics to weave room problems. *Principal Topics:* Mechanical calculations of the loom, the theoretical and practical production of the loom, yarn, beam, and fabric calculations, loom equipment and slasher problems. (*Weave*

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\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Textile Engineering and Weaving and Designing courses.

*Room Calculations*—Clark; *Cotton Mill Calculations*—Smith and Quigley; *W. D. Mimeograph Notes*.)

MR. TARRANT

MR. CARTEE

W. D. 31—DOBBY DESIGN—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* W. D. 21.

*Purpose:* To give instruction in the derivation of the specifications and drafts necessary for the productions of fabrics on the dobby loom. *Principal Topics:* Ratio of intersections; methods of combining weaves; laying out weaves for figures, stripes, and checks, dressing and beaming plans; harness, reed, and chain plans. (*W. D. Mimeograph Notes*.)

W. D. 32—ADVANCED DOBBY DESIGN—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 31.

*Purpose:* To give the student training in designing the more advanced types of dobby-woven fabrics. *Principal Topics:* Weaving specifications for handkerchiefs, clip-spot fabrics, double cloths, and composition of original dobby patterns. (*W. D. Mimeograph Notes*.)

MR. McKENNA

MR. TARRANT

W. D. 33, 34—FABRIC ANALYSIS—Semester 1 (0 and 2) 1 cr. Semester 2 (0 and 2) 1 cr.

*Prerequisite:* W. D. 12, (W. D. 21 and 22 suggested.)

*Purpose:* To give the student a thorough knowledge of the analysis of fabrics as they come to the mill for reproduction. *Principal Topics:* Methods of determining yards per pound from a small sample of yarn counts; overall and ground construction; selection of yarn counts; determining the design, drawing-in-draft, chain draft, and reed plan; warp dressing plan; cotton, wool, silk, and rayon fabric. (*W. D. Mimeograph Notes*.)

MR. CARTEE

W. D. 35—FANCY LOOM FIXING—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give the student an understanding of the principles of operation, timing, and settings of the dobby and drop box looms. *Principal Topics:* A study of harness settings for various types of patterns; setting and timing of cylinder, knives, crankshaft, box motion, hooks, and chains; building box, pattern, and multiplier chains; weaving fabrics from original chains. (*Dobbies, Box Motions, Dobby and Dobby Multipliers; W. D. Mimeograph Notes*.)

MR. CARTEE



W. D. 36—FANCY LOOM FIXING—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* W. D. 23 and 24 (W. D. 35, suggested).

*Purpose:* To give practical instruction in the timing and setting of special motions used on dobby and box looms. *Principal Topics:* Double cylinder dobbies, rocking cylinder, two weave and center filling stop motion; automatic stationary magazines; four chain multipliers, warp striper, and feeler motion. (*Crompton and Knowles Bulletins; W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 37—RAYON PROCESSING—Semester 1 (1 and 2) 1 2/3 cr.

*Prerequisite:* Open to juniors and seniors in the Textile School.

*Purpose:* To instruct the student in the processes of rayon warp preparation and in the weaving of rayon fabrics. *Principal Topics:* Rayon yarns classified according to the processes used in their manufacture; physical properties of the rayons and their relation to processing; winding, warp, and slashing; sizing materials and formulae; rayon weaving. (*Rayon and Synthetic Yarn Handbook—Schwarz.*)

MR. MCKENNA

W. D. 41—JACQUARD WEAVING—Semester 1 (1 and 2) 1 2/3 cr.

*Purpose:* To give instruction in the operation and mechanism of the Jacquard machine and complementary equipment. *Principal Topics:* Types of Jacquard machines, types and methods of harness building, designs for different tie-ups, card cutting and lacing, Jacquard machine fixing. (*Jacquards, International Textile Book Company; W. D. Mimeograph Notes.*)

MR. MCKENNA

W. D. 42—JACQUARD DESIGN—Semester 2 (1 and 4) 2 1/3 cr.

*Purpose:* To give instruction in the design of fabrics of artistic value for decorative purposes. *Principal Topics:* Application of the principles of decorative design; derivation of original designs by the use of color, weave, and form; pattern enlargement; card cutting and lacing; sample weaving. (*W. D. Mimeograph Notes.*)

MR. MCKENNA

W. D. 43—COST FINDING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Open to juniors and seniors in the Textile School.

*Purpose:* To teach the fundamentals of cost finding procedure and the control of manufacturing costs. *Principal Topics:* Standard costs,

cost control, valuing the inventory, material costs, labor budgets, distribution of fixed charges, departmental processing costs, determining the costs of individual yarns and fabrics, cost reports. (*Computing Cotton Fabric Costs*—Hill; *W. D. Mimeograph Notes*.)

MR. CAMPBELL

W. D. 44—LENO DESIGN AND WARP PREPARATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 31, 33, and 34.

*Purpose:* To give the student thorough instruction in the practice of warp preparation and in the structure of cross-woven fabrics and the methods employed in their design and production. *Principal Topics:* Mechanism for leno weaving, simple leno fabrics, fancy leno on one set of doups, the slotted doup, three-end leno; full turn leno, advanced fabric styling, starches; sizes, slashing methods, warping machinery. (*Fundamentals of Leno Weaving*—Shinn and McKenna; *W. D. Mimeograph Notes*.)

MR. MCKENNA

W. D. 45, 46—PATTERN WEAVING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Purpose:* To coordinate the principles taught in the fundamental courses of the Weaving and Designing Department. *Principal Topics:* The student will be required to design and produce to specifications one fancy cloth each semester and submit reports covering the design and analysis. (*W. D. Mimeograph Notes*.)

MR. MCKENNA

W. D. 45.5, 46.5—ADVANCED PATTERN WEAVING—Semesters 1 and 2 (0 and 6) 2 cr.

*Prerequisite:* W. D. 31, 32, 33, and 34.

*Purpose:* This course is arranged especially for students in textile design with the objective of giving the student more time to apply the principles of design in the production of fancy fabrics. *Principal Topics:* The student will be required to produce two decorative fabrics of a complex nature each semester and submit reports covering their specifications, design, analysis, and manufacturing cost.

MR. MCKENNA

W. D. 47—INDUSTRIAL MANAGEMENT—Semester 1 (2 and 0) 2 cr.

*Purpose:* To give the student an insight into the principles of factory organization and administration. *Principal Topics:* The design and con-

struction of factory buildings, selecting equipment, plant layout, material handling, lighting, time and motion study, wage payment plans, manufacturing costs. (*Industrial Engineering and Management*—Barnes.)

MR. McKENNA

W. D. 47.5—PERSONNEL MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the personnel problems of the textile mills and the methods employed in the management of labor. *Principal Topics:* Employee development, industrial historical background, selection and placement, compensation, job analysis and specifications, joint relations, personnel records, industrial sanitation and health, safety, industrial codes. (*Applied Personnel Administration*—Walters.)

MR. McKENNA

W. D. 48—KNITTING—Semester 2 (0 and 2) 2/3 cr.

Open to juniors and seniors in the Textile School.

*Purpose:* To familiarize the student with the principles of knitted fabric construction and hosiery production. *Principal Topics:* Knitting mechanisms, construction of knitted fabrics and hosiery, rib knitting, hosiery machinery, fancy knitting, sinker-reverse plating, the float and the welt stitch principle, hosiery analysis, material costs, labor costs, overhead costs, knitting calculations. (*W. D. Mimeograph Notes*.)

MR. CARTEE

W. D. 50—THESIS—Semester 2 (0 and 2) 1 cr.

*Purpose:* To introduce the student to the experimental method of solving problems. *Principal Topics:* Individual problems requiring original investigation will be assigned in some phase of textile manufacture. The thesis will consist of a report on the results obtained through research or experiment.

MR. CARTEE      MR. McKENNA

#### ROOMS AND EQUIPMENT OF THE WEAVING AND DESIGNING DEPARTMENT

The class rooms and laboratories of the Weaving and Designing Department are equipped for instruction in the manufacture of a wide variety of woven and knitted products. The weaving laboratories contain forty looms, representing practically all types of plain, gingham, dobby, and Jacquard looms in use in the southern cotton mills with additional equipment for winding, warping, slashing, and card stamping.

The knitting division is equipped with the leading types of latch needle hosiery machinery for the production of ladies' and men's plain and fancy hosiery. Modern lighting and humidifying systems have been installed in all laboratories and class rooms.

### YARN MANUFACTURING

MR. EATON

MR. DUNLAP

MR. BLAIR

MR. GAGE

MR. CAMPBELL

Y. M. 11—THE TEXTILE INDUSTRY—Semester 1 or 2 (1 and 2) 1 2/3 cr.

*Purpose:* To introduce textile students to the industry through study and discussions on factory organization, the use of cleaning and spinning machines, nomenclature. *Principal Topics:* Brief history of the industry, relation of owners and management, economic importance of textiles. The laboratory is used to demonstrate each machine used in yarn manufacturing. Calculations of machine speeds, drafts, and waste explain the action of each machine and its parts and yarn numbering. (*Y. M. Mimeograph Notes.*)

MR. EATON

MR. BARTON

MR. DUNLAP

MR. GAGE

Y. M. 21—PICKERS—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student thorough knowledge of cotton opening, cleaning, and lap forming equipment. *Principal Topics:* Bale breakers, automatic feeders, lappers, cleaning trunks, beaters, evener motions, and measuring devices, calculations for drafts, production, waste, and speeds. (*Cotton Yarn Manufacture—Winchester; Y. M. Mimeograph Notes.*)

MR. BLAIR

Y. M. 22—CARDS AND DRAWING FRAMES—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student thorough knowledge of revolving top flat cards and drawing frames as used in cotton manufacturing. *Principal Topics:* Settings, grinding, stripping, card clothing, calculations for card speeds, production, waste, and draft, metallic and covered top rolls, roll settings, all calculations and practice in operating both machines. (*Cotton Yarn Manufacture—Winchester; Y. M. Mimeograph Notes.*)

MR. GAGE

MR. EATON

MR. BLAIR

Y. M. 23—MILL PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To give a thorough foundation in arithmetic as applied to textile manufacturing. *Principal Topics:* Problems in draft, twist, waste



percentage, production, and machine organizations. (*Cotton Mill Mathematics*—Quigley and Smith; *Y. M. Mimeograph Notes*.)

MR. CAMPBELL

MR. DUNLAP

\*Y. M. 24—MILL PROBLEMS—Semester 2 (2 and 0) 2 cr.

*Purpose:* To give a thorough foundation in arithmetic as applied to textile manufacturing. *Principal Topics:* Deals with problems in draft, twist, waste percentage, production, and machine organizations. (*Cotton Mill Mathematics*—Quigley and Smith; *Y. M. Mimeograph Notes*.)

MR. DUNLAP

MR. CAMPBELL

Y. M. 28—COTTON GRADING—Semester 1 or 2 (0 and 2) 2/3 cr.

*Purpose:* To teach the fundamentals of cotton classing according to U. S. Government Standards for grades and staples. *Principal Topics:* Stapling, classing, and valuing all grades of cotton raised in U. S.; methods of ginning, marketing, and handling cotton; contracts and claims. (*Government Bulletins*; *Cotton Yarn Problems*—Smith; *Y. M. Mimeograph Notes*.)

MR. GAGE

MR. BLAIR

Y. M. 31—ROVING FRAMES—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give complete information on the construction and operation of fly frames. *Principal Topics:* Drafting, twisting and winding on slubbers, intermediates, and Jack frames; production, rolls, spindles, and flyers, differential motions and cones, twist per inch, sizing roving, all calculations for these topics. (*Cotton Yarn Manufacture*—Winchester; *Y. M. Mimeograph Notes*; *Cotton Yarn Problems*—Smith.)

MR. EATON

Y. M. 34—SPINNING, SPOOLING, AND TWISTING—Semester 1 or 2 (2 and 3) 3 cr.

*Suggested Preliminary Course:* Y. M. 31.

*Purpose:* To give thorough knowledge of cotton yarns and their manufacture on ring spinning frames, winding, spooling, and twisting machinery. *Principal Topics:* Machine construction, functions of all parts, calculations for draft, twist, doubling, and constants; wet and dry

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\*Y. M. 23 and W. D. 26, or W. D. 25 and Y. M. 24 constitute required textile mathematics in Textile Engineering and Weaving and Designing courses.

twisting, rings, and travelers. (*Cotton Yarn Manufacture*—Winchester; *Cotton Yarn Problems*—Smith; *Y. M. Mimeograph Notes*.)

MR. DUNLAP

Y. M. 42—COMBERS, SLIVER AND RIBBON LAPPERS—Semester 2 (1 and 2) 1 2/3 cr.

*Purpose:* To study settings and adjustment of the comber and its preparatory machines, and the value and use of its product. *Principal Topics:* Timing and setting comber for various staples and required waste, production and all other calculations, management, and operation of these machines.

MR. BLAIR

Y. M. 43—DOUBLING AND DRAFTING—Semester 1 (1 and 2) 1 2/3 cr.

Y. M. 31 and Y. M. 34 should precede Y. M. 43.

*Purpose:* To study as a manufacturing unit all card room and spinning room equipment. *Principal Topics:* Calculations for draft, production, weights, and number of machines required for various counts; labor costs; production of yarn from raw cotton, using all necessary equipment.

MR. DUNLAP

Y. M. 44—MILL ECONOMICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* At least one textile course, preferably W. D. 43.

*Purpose:* To give seniors the principles of economics as applied to general management. *Principal Topics:* Cloth and cotton prices and their relation, calculations for quotations and delivery dates, mill construction, fire and accident insurance, wage and labor conditions. Some of these topics are made the subjects of written reports. (*Y. M. Mimeograph Notes*.)

MR. EATON

Y. M. 48—TEXTILE TESTING—Semester 2 (1 and 2) 1 2/3 cr.

*Purpose:* To instruct the student in testing fiber, yarns, and fabrics. *Principal Topics:* The principal topics include such factors as variety, growing conditions, fiber uniformity, and others influencing the strength and uniformity of yarns. The importance of humidity and its effect upon the working qualities and strength of yarn will be demonstrated. (*A. S. T. M. Specifications* and *Y. M. Mimeograph Notes*.)

MR. WILLIS

Y. M. 50—THESIS—Semester 1 (0 and 2) 1 cr.

Required of all Textile Engineering Seniors.

*Purpose:* To summarize all information gained from previous Y. M. courses. *Principal Topics:* Using Y. M. Calculations, conducting manufacturing tests, analyzing test data, and preparing written reports.

MR. WILLIS

### *Carding and Spinning Equipment*

The carding and spinning division has one breaker and finisher picker, three cards, four drawing frames, one comber, one sliver lapper and one ribbon lapper, seven fly frames, twelve spinning frames (three of which are long draft), two twistors, two winders, and one spooler.

*Testing Laboratory:* The textile testing laboratory is equipped with American Moistening humidifying and dehumidifying units, automatically controlled. The laboratory is equipped with modern machines for testing fibers, yarns, and fabrics.

### ZOOLOGY\*

MR. SHERMAN

MR. DUNAVAN

MR. WARE

ZOOL. 12—GENERAL ZOOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

*Purpose:* For general science and pre-medical students. To give the student a thorough training in the characteristics, life-histories, and habitats of the principal animal forms. *Principal Topics:* Physiology of living cells, animal environments, cell division, maturation, reproduction, genetics, observation and study of representatives of the principal animal phyla. (*Textbook of General Zoology*—Curtis & Guthrie; *Laboratory Directions in General Zoology*—Curtis & Guthrie.)

MR. WARE

ZOOL. 21—GENERAL ZOOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* For students in agriculture. To familiarize the student with the characteristics, life-histories, and habits of the common types of animals. *Principal Topics:* Physiology of cells, animal environments, cell division, reproduction; observations and study of representative

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\*See also Entomology. Students who major in the Entomology and Zoology Department are required to take several courses in Entomology in addition to those listed under Zoology.

animals; special emphasis on agricultural phases of the subject. (*Text-book of General Zoology*—Curtis & Guthrie; *Laboratory Directions in General Zoology*—Curtis & Guthrie.)

MR. DUNAVAN      MR. WARE

ZOOL. 33—ADVANCED ZOOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To give advanced training in zoological principles and characteristics of animal forms as a basis for later graduate study. *Principal Topics:* Histology, embryology, ecology, distribution, and economic relationships of vertebrate animals, characteristics of all vertebrate groups.

MR. WARE

ZOOL. 48—INTRODUCTION TO GAME MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To present the subject of Game Management with special reference to game mammals and game birds. *Principal Topics:* Game mammals, birds and fishes of South Carolina and of the United States with reference to conservation and recreation. (No textbook required. Reference works to be used: *Game Management*—Leopold; *The Bob White Quail*—Stoddard; publications of U. S. Bureau of Biological Survey and Bureau of Fisheries.)

MR. SHERMAN



## PART VI--PUBLIC SERVICE

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### *THE SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION\**

The Agricultural Experiment Station of South Carolina is a department of Clemson College. The experiment station at present consists of the main station, which is located at Clemson, and five sub-stations: one at Summerville, in the coastal plain region; one at Florence, in the Pee Dee section; one at Pontiac, near Columbia, in the sand hill region; one in the trucking section near Charleston; and one in Barnwell county in the melon-growing area. The main offices and laboratories of the station are located on the Clemson College campus, while the station experiment farm, consisting of about 200 acres, is east of and adjoining the college campus. The investigations dealing with the fundamental principles of agricultural sciences and with the application of such principles to practical agricultural operations are carried on in the laboratories and on the experiment station farm at Clemson. The experiments looking to the adaptation of such scientific data accumulated here and elsewhere to the conditions peculiar to certain sections of the State are carried on at the sub-stations and at branch laboratories established in certain sections of the State for this purpose.

It is the aim of the experiment station to conduct research work on problems which have a direct practical bearing on the agriculture of the State. With this end in view extensive experiments relative to the best methods of procedure under various conditions with the principal plants and animals have been undertaken. Economic and social problems are likewise being investigated. As progress is made the results obtained are given out to farmers in the form of bulletins, circulars, and personal letters. Since the establishment of the station, 303 such bulletins and fifty-three circulars have been published, covering practically all phases of agriculture.

Aside from the research work and the publication of results obtained from such research, the experiment station performs

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\*The experiment station staff is given on page 20.

various other duties. Among these might be mentioned the entomological and pathological inspection work (which aims to protect the farms, orchards, and gardens of the State against the introduction of injurious insects and diseases); the biological and soil survey of the State, and the cooperative experimental work carried on with hundreds of farmers in the State. The technically trained experts of the station staff are regarded as authorities in their several specialties, and they are constantly giving out information relating to the various lines of agricultural endeavor. The station staff also aids in disseminating agricultural knowledge by cooperating with the Extension Service of the College in holding agricultural meetings and conferences and by meeting with the farm demonstration agents and giving to them technical information which they in turn carry direct to the farmers.

Close cooperation is maintained with the various research bureaus of the United States Department of Agriculture and with the departments of the College. The laboratories are always open to the inspection of the students and other people of the State. The same is true of the experiment station farm. There is always opportunity for a limited number of students to secure work in the various divisions of the station and to assist in the research work carried on by the members of the station staff.

Home economics research is carried on in cooperation with Winthrop College at Rock Hill. This work is designed to secure additional information on economic, social, and health factors influencing the home and living conditions of rural people.

Close cooperation is maintained between the home economics research department, the teaching and extension workers in this field, and the clubs and societies engaged in the promotion of better rural homes.

A full report of the work and expenditures of the Experiment Station is published annually and this report and all other publications of the station are free and will be sent on request. (Requests for these should be addressed to the Director, Agricultural Experiment Station, Clemson, S. C.)

## FERTILIZER INSPECTION AND ANALYSIS

The work of fertilizer inspection and analysis is under the supervision of the Fertilizer Board of Control consisting of a Committee of the Board of Trustees. The work of inspection and analysis is a department of the Agricultural Experiment Station. District Inspectors are located in different parts of the State. Their duties are to collect official fertilizer samples for analysis and check on the tagging and labelling of all fertilizer material.

The chemical work consists of the analysis of commercial fertilizers as provided for by the Fertilizer Law of the State. This Department also undertakes the analysis of waters, ores, minerals, and other naturally occurring materials, portions of human bodies in cases of suspected poisoning (as provided for by law), and the analysis of home-mixed fertilizers. All the work of this Department is done without charge.

## THE AGRICULTURAL EXTENSION SERVICE\*

The agricultural extension work of the College is carried on by the Extension Service in cooperation with the United States Department of Agriculture. The work is supported by Federal appropriations and in part by State and County appropriations. The main development of extension work has come since the enactment of the Smith-Lever Act in 1914. The purpose of extension work is to diffuse among farm people useful and practical information on subjects related to agriculture and the farm home, and to stimulate the application of this information. A staff of specialists assists the county agents in planning and carrying out demonstrations with farmers over the State.

*Publications and News.*—Large numbers of publications, including bulletins, circulars, posters, and information cards, are distributed annually. The extension news service to the newspapers of the state consists of (1) mimeographed news letters to all papers issued twice weekly or oftener averaging thirty to forty stories per month; (2) news letters to the daily papers

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\*The extension staff is given on page 24.



through the Associated Press as occasion demands; (3) longer special or feature stories to individual papers or groups of papers when special material is at hand. Monthly letters or printed circulars on poultry, orchards, gardening, dairying, and boys' club work are mailed free to those persons especially interested in these subjects.

*County Agents.*—Every county in the State, by Act of the Legislature in 1929, has a county farm agent. These agents are agricultural college graduates who have had practical farm experience. They devote their time to instructing farmers through demonstrations, personal conferences, meetings, community organizations, publications, letters, and otherwise.

*Home Economics Work.*—This work is carried on under the immediate supervision of Winthrop College. It is, however, a part of the extension work under the Smith-Lever Act, and is under the general direction of the Extension Service. Every county is provided with a home demonstration agent by legislative enactment.

*Negro Demonstration.*—Seventeen local negro agents are employed to work with the negro farmers of the State in sections where the negro population is great. These agents are employed in cooperation with the State College at Orangeburg, where the supervising agent is stationed.

*Live Stock.*—Work in this project is carried on with the idea of promoting the live stock interest of the State along sound, permanent lines. Those desiring to purchase purebred live stock can in most cases secure them within the State from breeders who have been assisted by the Extension Service. This was not true some years ago. Live stock agents have also stimulated the development of pastures and the growing of forage crops and have assisted in the feeding and marketing of cattle and the cooperative purchase of materials needed. There is a revival of interest in hogs and sheep, and these lines of live stock work will no doubt make greater demand for assistance from the Extension Service.



*Dairying.*—The extension dairymen devote their time chiefly to development work connected with bull associations, feed campaigns, dairy schools. Information is furnished concerning the construction of silos and barns, the purchasing of dairy cattle, testing and improvement of herds, and the marketing of products.

*Corn and Cotton Work.*—Cotton demonstrations among farmers are conducted for the purpose of improving the quality of staple and lowering the costs through larger yields per acre. A similar line of demonstration is in operation to put the growing of corn on a more efficient basis.

*Orchards, Gardens and Sweet Potatoes.*—Home orchards and gardens, commercial peach and apple orchards, and the efficient production of sweet potatoes for market are the special interests of the extension horticulturists. The results obtained in the last few years along these lines are far reaching and point the way for the utilization of some of our acres under present conditions.

*Poultry Work.*—The wisdom of increasing the size and quality of farm flocks is now being emphasized, together with efficiency in marketing poultry. For a number of years shipments of live poultry in car lots have been increasing. Many hatcheries are in operation, and every phase of poultry production is being enlarged. A modern poultry plant at Clemson was given to the College by a friend interested in promoting agricultural welfare and readjustment. This is one of the best poultry plants in the cotton states and serves as a place to work out poultry problems, as well as a demonstration to farmers and for teaching purposes.

*Marketing.*—Much of the time of extension workers is spent aiding in marketing. Efforts are made to secure convenient and profitable marketing arrangements for the various crops of the State. The organization of cooperative marketing associations is encouraged. Proper grading and loading for shipment are stressed, particularly where farmers are just beginning to produce a new crop. Shipping point inspection for those who desire it has been provided in cooperation with the Federal Bureau of Agricultural Economics for the protection of shippers of cer-

tain perishable crops. Very little crop surplus is produced for which some outlet has not been found. The chief problem lies in producing and preparing for market preferred quality products.

*Entomology.*—There are two principal lines of this work: first, insect control work; and second, beekeeping work. One specialist is employed who gives his time to the insect work, instructing farmers in the life history, habits, etc., of insects and control measures.

A specialist in beekeeping is employed to develop this industry for which the State has great possibilities.

*Boys' Club Work and Short Course.*—Boys' agricultural clubs are organized with the idea of enlisting the intelligent interest of the boys, and through them their parents, in improved methods of agriculture.

*Agricultural Economics.*—Much farm production takes place blindly without satisfactory knowledge on the part of the farmers and farm credit agencies of the prospect for success in any given enterprise, or for any particular acreage of a crop. There is a very great need for wider dissemination among farm people of economic information that may be used by them as a guide in planning their farm businesses. The importance of such information having been realized, a division of Agricultural Economics has been created in the Extension Service to aid in keeping the farm people of the State better informed on economic matters and to carry to them the results of research work.

Since the beginning of the acreage adjustment work of the Agricultural Adjustment Administration in 1933 under the United States Department of Agriculture, the work of the Extension Service has included the conducting of campaigns to carry out the policies of the AAA in seeking to improve the economic condition of the farmers.

*Agricultural Engineering.*—Two extension specialists are employed to help direct farm development along engineering lines, including terracing, drainage, two-horse and power equipment, as well as plans for farm buildings and other structures.

## *THE ENGINEERING EXPERIMENT STATION*

A majority of the Land Grant Colleges of the United States have established engineering experiment stations, and these have proved of great value in aiding industrial and engineering developments in the various states.

The engineering experiment station of the Clemson Agricultural College was established by the Board of Trustees in July, 1924.

Its purpose is to aid the present industries in the state, to do research work on the material resources of the state with a view of leading to the establishment of new industries, to study methods of utilizing waste products, etc.

In addition to serving the industries of the state and helping to solve engineering problems for the agricultural interests, it is hoped, in cooperation with the stations of other states, to add to the store of scientific and engineering knowledge. The staff consists of well-trained men from the various schools and departments of the college. The laboratories of the several departments of engineering, as well as others, are available for the use of the station in its investigation.

The results of all investigations are to be published in the form of bulletins and circulars to be distributed free to all who may be interested. Copies of publications may be secured by applying to the Director of Engineering Experiment Station, Clemson, South Carolina.

## *RESEARCH IN EDUCATION*

While members of the Education staff have conducted a number of research projects in the past, no definite research organization for educational research existed prior to 1936, at which time the research activities of the School of Vocational Education were organized. A grant from the General Education Board and the support of the college made possible the initiation of this program. Provisions were made for cooperative research in Vocational Agriculture with the State Supervisor of Agriculture in the expansion of that work under the George-



Dean Act. When the largest single expenditure of funds is involved, and when the largest number of any single enterprise is involved, it seems but natural that progressive educational programs should include a comprehensive effort in research. Clemson hopes through this work to help advance the cause of education along appropriate lines.

### *LIVESTOCK SANITARY WORK\**

The Clemson College Live Stock Sanitary Office is a department of Clemson College and is under the supervision of the Agricultural Committee of the Board of Trustees. This office is located in the State Office Building, Columbia, S. C., in order that the best interests of the livestock industry may be served, and is in charge of the State Veterinarian, Dr. W. K. Lewis, who is also Director of this Department.

The principal objectives of this office are tick eradication, tuberculosis eradication, and hog cholera control. In addition to these, all reported outbreaks of contagious, infectious, and communicable diseases of livestock and poultry are investigated and measures recommended for their control and eradication; and quarantine is maintained against the introduction of diseased livestock into the State.

The Columbia office has a fully equipped laboratory for bacteriological, pathological, and serological work, in order that proper and prompt diagnosis of certain diseases may be made. Parasitic research work will be conducted in various sections of the State in cooperation with the Columbia laboratory.

In addition to the force of veterinarians working with the Columbia office, Assistant State Veterinarians are located at strategical points in the State in order to be readily available to all farmers.

On July 1, 1938, twenty-nine practicing veterinarians of the State were commissioned as Deputy State Veterinarians, to assist the State Veterinarian in the control and eradication of con-

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\*Livestock Sanitary Work staff is given on page 23.



tagious and infectious diseases of livestock. The Deputy State Veterinarians are stationed principally in the northern and eastern sections of the State, so these together with the Assistant State Veterinarians in the middle and southern sections of the State, enable the Clemson College Live Stock Sanitary Office to render a service to the livestock industry of the State in keeping with its development and maintain the service at the highest degree of efficiency.

The Clemson College Live Stock Sanitary Office also maintains equipment for handling large stocks of anti-hog-cholera serum, virus, and veterinary biologics, and furnishes these products to the citizens of the State at cost, thereby effecting a saving to them of several thousands of dollars annually.

The live stock sanitary work is required by legislative enactment and is supported by legislative appropriations.

The Bureau of Animal Industry, U. S. Department of Agriculture, cooperates in tick eradication, tuberculosis eradication, and hog cholera control, and appropriates funds in addition to the State appropriation for these objectives.

### MISCELLANEOUS PUBLIC SERVICE

*Entomological and Pathological Inspection.*—This work is carried on under the direction of the State Crop Pest Commission. The State Entomologist and the State Pathologist have charge of this work under the commission.

The work of these officers consists in the control of contagious plant diseases and insect pests. Supervision of all nursery stock sold within the State is a duty of the Crop Pest Commission.

A permit tag issued by the State Crop Pest Commission should be attached to every package of nursery stock, seed, or plants offered for sale or shipment for planting purposes.

*Textile Testing.*—The textile department maintains a yarn testing service for the cotton mills of South Carolina.

*Textile Research.*—Clemson in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture conducts manufacturing tests of grades, staples, and varieties of cotton. Valuable reports based on this work are issued from time to time. Copies of these reports may be acquired by addressing either the College or the Bureau of Agricultural Economics, Washington, D. C.

*Service to Textile and Other Industrial Teachers.*—The College in cooperation with the State Department of Education is glad to assist those who teach night schools by supplying a trained man to assist in the work of organizing classes, organizing courses of study, making plans for teaching evening classes, and actually teaching vocational subjects. Requests for information regarding this service should be addressed to Professor L. R. Booker, Itinerant Teacher Trainer, Industrial Education Department, Clemson. S. C.

*Agricultural Follow-up and Itinerant Teacher Training.*—The members of the staff of Agricultural Education visit all beginning teachers for the purpose of assisting them on the job and also for the purpose of collecting information which may prove helpful in improving the work of teacher training at the College.

*Research in Vocational Agricultural Education.*—A research program has been inaugurated in the Department of Agricultural Education as one of the six functions of teacher training. This work is being done in cooperation with the State Department of Education. The state supervisors of agricultural instruction and the teacher trainers have adopted, as the purpose of research work at the present time, the promotion of better instruction in vocational agriculture in the public schools of the State.

*State Vocational Agricultural Judging Contest.*—The Clemson Agricultural College, cooperating with the State Department of Education, conducts annually a judging contest for students of vocational agriculture. The nature of this contest is educational, and many high school boys have an opportunity thereby of improving themselves in selecting better specimens of various

agricultural products. The two schools ranking highest in the contest in 1938 were: First, Johnston, J. R. Smoak, coach; and second, Lamar, P. M. Booth, coach. Frank Smith of Easley was awarded a prize as the highest individual contestant. The following teams won first places: judging dairy cattle, Johnston; judging all classes of poultry, Loris; judging crops, Conway; judging horticultural products, Cameron. The Johnston High School won first place in judging general livestock and were given a trip to Kansas City to represent the State in the Vocational Students' Judging Contest at the American Royal Livestock Show.

*State-wide Industrial Education Contest.*—A State-wide Industrial Education contest was inaugurated by Clemson College and the State Department of Education in 1935. This contest has been open to all public schools teaching Industrial Education. The contest includes competition in woodworking, drawing, textiles, and toolcraft. The rules are outlined by members of the faculty representing those departments involved in the competition. Many valuable prizes are given each year to individuals and teams who participate in the contest. The greatest value is the interest created in craftsmanship on part of contestants. Any school may receive announcements concerning contest by writing H. S. Tate, Department of Industrial Education, Clemson, S. C.

*Publications.*—The Agricultural Education staff in cooperation with the State Department of Education publishes a monthly bulletin which is used by students of vocational agriculture in the public schools of the State. The contents of this bulletin consist largely of the results of experimental work in agriculture assembled in such a way as to assist students in solving their farming problems. This bulletin has been published for fifteen years. The teachers of agriculture have made it a practice to have the numbers of each volume bound for current use. All back numbers have been completely indexed. The bound volumes of Agricultural Education Bulletin together with the current monthly issues provide the students of vocational agriculture with a record of the results of applicable experimental work in

agriculture. At the present time 10,000 copies are published monthly. This publication is available to students and teachers of agriculture and others at cost.

### *SUMMER EDUCATIONAL ACTIVITIES*

During the summer, various activities are organized to serve the needs of special groups of students and others. The activities undertaken in the summer of 1938 included the following:

|                                             |                   |
|---------------------------------------------|-------------------|
| CCC Summer School for Advisers of Districts |                   |
| B and I .....                               | June 6-25         |
| Summer School .....                         | June 6-July 16    |
| Public School Trustees Meeting .....        | June 9            |
| Conference of County Superintendents of     |                   |
| Education .....                             | June 15-17        |
| Informal Conference of Administrators ..... | June 21-22        |
| Four-H Boys .....                           | July 6-8          |
| Opportunity School .....                    | July 23-August 20 |
| Poultry Short Course .....                  | August 23-25      |
| Conference of Agricultural Teachers .....   | August 25-27      |

### *THE CLEMSON COLLEGE SUMMER SCHOOL*

The Clemson College Summer School provides an opportunity for Clemson and other college students to take advanced courses and hasten graduation, to take special work not offered during the regular session, or to make up back work for time lost on account of illness. It also provides opportunity for high school graduates to "test" their interest and ability in college work at a very nominal cost.

Education courses anticipated for 1939 include primary, elementary, junior high, secondary, vocational and special courses. There has been an unusually strong demand for Clemson-trained teachers.

The following courses of study were offered during the 1938 Summer School. An announcement of the 1939 program may be secured in the spring by addressing either G. E. Metz, Registrar or W. H. Washington, Dean, Clemson College Summer School, Clemson, South Carolina.



## SUMMER SCHOOL COURSES

June 6-July 16

1938

| Dept. & No.<br>of course                                           | Title | Instructor               | Credit |
|--------------------------------------------------------------------|-------|--------------------------|--------|
| Agr. 11—Field Crops                                                | ----- | Collings                 | 3      |
| Agr. 20—Soils                                                      | ----- | Collings                 | 2½     |
| Agr. 31—Fert. and Manures                                          | ----- | Collings                 | 2      |
| Agr. 101—Tobacco (June 6-25)                                       | ----- | McGee                    | 2      |
| Agr. Ec. 100—Coop. Effort (June 27-July 16)                        | ----- | Aull                     | 2      |
| Agr. Engr. 23s—Farm Shop                                           | ----- | Nutt                     | 2      |
| Bact. 31—General Bacteriology                                      | ----- | Aull                     | 3½     |
| Chem. 11—General Chemistry                                         | ----- | Hunter                   | 3½     |
| Chem. 12—General Chemistry                                         | ----- | Hunter                   | 3½     |
| Chem. 28s—Organic Chemistry                                        | ----- | Mitchell                 | 4      |
| Chem. 33a—Quantitative Analysis                                    | ----- | Mitchell                 | 2½     |
| E&G 11—Am. Gov't & Political Parties                               | ----- | Holmes                   | 2      |
| Ed. 20.1s—Primary Reading, Obs., Etc.                              | ----- | Sharpe                   | 2      |
| Ed. 21.1s—Observation & Par. Tch.                                  | ----- | Sharpe                   | 2      |
| Ed. 21.2s—Centers of Interest, Prim. Gr.                           | ----- | Sharpe                   | 2      |
| Ed. 26.1—Teach. of Music and Toy Orchestra in the Grades           | ----- | Holleman                 | 2      |
| Ed. 27.5—Bldg. of Programs for Assemblies and<br>Special Occasions | ----- | Holleman                 | 2      |
| Ed. 28.7—The Teaching of Music in the Integrated Program           | ----- | Holleman                 | 2      |
| or                                                                 |       |                          |        |
| Ed. 29.1s—Teach. Arith., Gr. 4-7                                   | ----- | Holleman                 | 2      |
| Ed. 31s—Centers of Interest, Int. Grades                           | ----- | Willson                  | 2      |
| Ed. 32s—Observ. & Practice Teaching                                | ----- | Willson                  | 2      |
| Ed. 33—Organization of Courses of Study                            | ----- | Brock                    | 3      |
| Ed. 35s—Teach. of Art Metal Work                                   | ----- | Brock                    | 2      |
| Ed. 36s—Teach. of Soc. Science in Junior High School               | ----- | Hines                    | 2      |
| Ed. 37s—Gen. High School Methods or                                | ----- | Hines                    | 2      |
| Ed. 37.5s—Teach. of Hist. & Civics in H. S.                        | ----- | Hines                    | 2      |
| Ed. 38s—Methods in Classroom Health Ed. in Int. Grades             | ----- | Hines                    | 2      |
| Ed. 39—Principles of Secondary Ed.                                 | ----- | Tate                     | 2      |
| Ed. 40a,b,c—Rural Ed.                                              | ----- | Lingenfelser & Spe. Tea. | 6      |
| Ed. 58—Educational Psychology                                      | ----- | Tate                     | 2      |
| Ed. 65s—Com. Recreation                                            | ----- | Kirchner                 | 3      |
| Ed. 66s—Sports & Games for Ph. Ed.                                 | ----- | Kirchner                 | 3      |
| Ed. 113—Supervision of Ed. Program                                 | ----- | Booker                   | 2      |
| Elect. 35—Electrical Machinery                                     | ----- | Philpot                  | 2½     |
| Elect. 36—Elect. Welding                                           | ----- | Philpot                  | 3      |
| Elect. 38s—High School Electricity                                 | ----- | Philpot                  | 2      |
| English 15—Comp. & Am. Lit.                                        | ----- | Bradley                  | 3      |
| English 16—Comp. & Am. Lit.                                        | ----- | Kinard                   | 3      |
| English 21—Major Poets, Age of Romanticism                         | ----- | Kinard                   | 2      |
| English 22—Major Poets, Victorian Age                              | ----- | Kinard                   | 2      |
| English 24s—Children's Literature                                  | ----- | Willson                  | 2      |
| English 31—Public Speaking                                         | ----- | Bradley                  | 2      |
| English 32—Business Law                                            | ----- | Bradley                  | 2      |
| History 1—Develop. of South Carolina                               | ----- | Holmes                   | 2      |
| History 14—Am. Econ. & Social Hist.                                | ----- | Holmes                   | 2      |
| Ind. Arts 55s—Advanced Woodwork                                    | ----- | Marshall                 | 2      |

|                                                  |               |     |
|--------------------------------------------------|---------------|-----|
| Ind. Arts 56s—Projects in Woodwork               | Marshall      | 2   |
| Ind. Arts 57s—Ind. Arts for Teachers             | Marshall      | 2   |
| Ind. Arts 58s—Woodfinishing                      | Marshall      | 2   |
| Lib. Sci. 45s—Cataloging and Class.              | Stevenson     | 3   |
| Lib. Sci. 46s—Adolescent Literature              | Stevenson     | 3   |
| Math. 11s—Plane Trigonometry                     | Hunter        | 3   |
| Math. 12s—Col. Algebra & Anal. Geom.             | Hunter        | 3   |
| Math. 23—Dif. Calculus                           | Hunter        | 3   |
| Math. 24—Int. Calculus                           | Hunter        | 3   |
| ME 30—Materials of Engineering                   | Philpot       | 2   |
| Physics 11—General Physics                       | Huff          | 3½  |
| Physics 12—General Physics                       | Huff          | 3½  |
| Physics 21—Sophomore Physics                     | Hendricks     | 4   |
| Physics 22—Electricity & Mag.                    | Hendricks     | 4   |
| Physics 23, 24—Lab. Phys.                        | Brown or Huff | ¾   |
| Physics 33—Astronomy                             | Huff          | 2   |
| Soc. Sci. 41s—Ind. Sociology                     | Booker        | 2   |
| Typewr. 30s—Beginners' Typewriting               | Hudgens       | 3   |
| Typewr. 40s—Advanced Typewriting                 | Hudgens       | 3   |
| Voc. Ed. 34s—All Day Ag. Ed. (June 6-25)         | White         | 2   |
| Voc. Ed. 99r—Skills in Diversified Occupations   |               |     |
| Crawford, Lombard, Robertson, Newton             |               | 2   |
| Voc. Ed. 102—Methods Farm Shop (June 25-July 17) | Monroe        | 2   |
| Voc. Ed. 104—Part-time (June 6-25)               | Johnson       | 2   |
| Voc. Ed. 105—F. F. A. Activities (June 6-25)     | Bowen         | 1   |
| Voc. Ed. 106—Research in Ag. Ed. (June 6-25)     |               |     |
| Repeated June 25-July 16                         | Staff         | Ar. |
| Voc. Ed. 107—Methods Soil Conservation           | Crandall      | 2   |
| Voc. Ed. 121r—Cur. Prob. Ind. Ed.                | Goldberger    | 2** |
| Voc. Ed. 122r—Research Ind. Ed.                  | Turner        | 2** |
| Voc. Ed. 123r—Adm. Voc. Depts. & Prog.           | Turner        | 2   |
| Voc. Ed. 124r—Con. Meth. in Voc. Ed.             | Booker        | 2   |
| Voc. Ed. 125r—Voc. & Ed. Guidance                | Tate          | 2   |
| Voc. Ed. 126r—Coordination Voc. Ed.              | Booker        | 2   |
| WD 12—Gen. Textiles                              | McKenna       | Ar. |
| WD 21s-22s—Design                                | McKenna       | Ar. |
| WD 23s, 35s—Loom Fixing                          | McKenna       | Ar. |
| WD 31s-32s—Dobby Des., Fab. Anal.                | McKenna       | Ar. |
| Welding 36—Gas Welding (\$5.00 Lab. Fee)         | Philpot       | 3   |
| YM 29s—Cot. Grad. (\$15.00)                      | Person        | 2   |

\*\*Shorthand and typewriting receive elective credit for Clemson Education students. Others should have Head of Major Department approve in advance if credit is desired.

## PART VII--STUDENT REGISTER

### WAR DEPARTMENT TRAINING STAFF

|                             |                              |
|-----------------------------|------------------------------|
| Colonel Charles W. Weeks    | Infantry                     |
| Major Glenn D. Hufford      | Infantry                     |
| Major James P. Gammon       | Infantry                     |
| Major Russell F. Walthour   | Infantry                     |
| Major Albert H. Dumas       | Infantry                     |
| Major David E. Barnett      | Infantry                     |
| Sergeant Harry J. Wilkinson | Detached Enlisted Men's List |
| Sergeant Henry S. Heath     | Detached Enlisted Men's List |
| Sergeant Kenney R. Helton   | Detached Enlisted Men's List |
| Sergeant Otis A. deMott     | Detached Enlisted Men's List |

### CADET BRIGADE ORGANIZATION

|                               |                           |
|-------------------------------|---------------------------|
| Colonel J. S. Baskin          | Brigade Commander         |
| Colonel R. B. Fickling        | Brigade Executive         |
| Major J. C. Cook              | Brigade Adjutant          |
| Captain D. M. Hutchinson      | Brigade Chaplain          |
| First Lieutenant T. O. Lawton | Brigade Publicity Section |
| First Lieutenant T. B. Young  | Brigade Publicity Section |
| Master Sergeant A. D. Graham  | Brigade Sergeant Major    |
| Staff Sergeant J. B. Lee      | Brigade Publicity Section |
| Staff Sergeant E. Mazo        | Brigade Publicity Section |
| Staff Sergeant J. E. Schmidt  | Brigade Publicity Section |

### BATTALION ORGANIZATION

#### BRIGADE SPECIAL UNITS BATTALION

|                                    |                          |
|------------------------------------|--------------------------|
| Lieutenant Colonel H. L. Beach     | Battalion Commander      |
| Captain W. M. Hudson               | Battalion Executive      |
| First Lieutenant R. W. Watson      | Battalion Adjutant       |
| First Lieutenant B. H. Keitt       | Battalion Supply Officer |
| Staff Sergeant J. O. W. Richardson | Battalion Sergeant Major |

SECOND LIEUTENANT      SECOND LIEUTENANT  
COMPANY "1"              COMPANY "2"

BAND

#### *Captains*

#### *Captain*

Thomson, B. F.              Calhoun, F. H. H.

Horner, L. C.

#### *First Lieutenants*

#### *First Lieutenants*

Nickles, J. B. (\*)              Shealy, J. L. (\*)

Martin, J. R. (\*)

#### *Second Lieutenants*

Crosby, D. D.

|                   |                   |
|-------------------|-------------------|
| Ambrose, L. R.    | Baldwin, M. C. L. |
| Ballentine, C. F. | Barrineau, T. W.  |
| Blake, I. C.      | Bobo, F. G.       |
| Blakely, J. R.    | Bone, M. B.       |
| Blakely, L. J.    | Boselli, T. J.    |
| Brackett, W. E.   | Boys, R. W.       |
| Burress, D. E.    | Brodie, G. A.     |
| Carson, R. G.     | Cain, W. T.       |
| Cason, W. S.      | Chapman, A. D.    |

Frazier, W. H.

McCorkle, P. H.

#### *Second Lieutenants*

Banister, R. A.  
Bryan, W. C.  
Guerry, F. P.  
Peeling, B. A.  
Rhodes, L. M.  
Wolfe, R. S.

(\*) Indicates Company Executive Officer.

*Second Lieutenants*

|                   |                   |
|-------------------|-------------------|
| Champion, T. M.   | Chapman, A. H.    |
| Coleman, W. J.    | Cofer, W. O.      |
| Cooper, H. M.     | Coker, G. R.      |
| Copeland, J. F.   | Coleman, A. J.    |
| Copeland, O. L.   | Coleman, R. W.    |
| Crouch, H. M.     | Coleman, W. D.    |
| Dixon, J. E.      | Cosgrove, H. H.   |
| Evans, A. M.      | DeLoach, A. J.    |
| Ford, P. G.       | Dewey, C. A.      |
| Fulmer, T. D.     | Dukes, O. S.      |
| Gibert, J. W.     | Duvall, J. E.     |
| Harrison, J. H.   | Feinstein, H.     |
| Henderson, W. T.  | Foster, W. T.     |
| Henry, R. L.      | Gibson, H. C.     |
| Ivey, E. M.       | Gilchrist, H. A.  |
| Johnstone, E. P.  | Gormley, C. J.    |
| Joyce, D. T.      | Griffin, E. W.    |
| Kirchner, A. H.   | Guerard, E. P.    |
| Kirton, J. J.     | Guy, R. A.        |
| Lee, W. L.        | Harmon, M. N.     |
| Lester, N. R.     | Hendricks, B. L.  |
| Lyles, J. T.      | Hendrix, C. E.    |
| McMillan, J.      | Hester, R.        |
| Mahon, P. M.      | Jackson, R. F.    |
| Miley, C. C.      | Jones, C. M.      |
| Moon, C. C.       | Jones, E. H.      |
| Murphy, J. B.     | Kee, J. M.        |
| Nichols, M. M.    | Kirk, J. M.       |
| Parker, H. C.     | Lee, P. E.        |
| Patterson, S. P.  | Lipscomb, J. B.   |
| Perez, E. F.      | Lynes, J. M.      |
| Powers, M. R.     | McAlpine, L. E.   |
| Salley, H. G.     | McCown, K. J.     |
| Senn, T. L.       | McFaddin, N. J.   |
| Shealy, C. D.     | McNair, T. T.     |
| Sloan, R. A.      | Miller, L. L.     |
| Snell, A. H.      | Morgan, D. C.     |
| Stribling, S. P.  | Moss, R. W.       |
| Summerbell, W. E. | Newman, B. F.     |
| Warner, C. T.     | Northrup, W. B.   |
| Waters, L. E.     | Page, N. R.       |
| Watson, P. S.     | Rabinowitz, M.    |
| Whitmire, A. P.   | Rawl, F. L.       |
|                   | Raysor, H. A.     |
|                   | Simkins, J. E.    |
|                   | Smith, J. G.      |
|                   | Smith, J. K.      |
|                   | Staley, G. C.     |
|                   | Stokes, W. H.     |
|                   | Sullivan, J. E.   |
|                   | Thomas, H. J.     |
|                   | Thomas, R. C.     |
|                   | Vickery, V. V.    |
|                   | Whitlock, F. M.   |
|                   | Whitney, J. T.    |
|                   | Williamson, L. A. |

*Band Leader*

Bonnette, G. H.

*First Sergeant*

Mulling, F. J.

*Supply Sergeant*

Fenstermacher, E. R.

*Sergeants*

Berry, M. M.  
 Burney, J. H.  
 Cheatham, F. C.  
 Elmore, F. B.  
 Gramling, R. M.  
 Hawkins, T. P.  
 Law, W. C.  
 Lawton, J. G.  
 McClure, J. B.  
 McKnight, J. C.  
 Pearman, J. N.  
 Perna, F. J.  
 Rhodes, W. G.  
 Sharpe, W. B.  
 Turner, G. M.  
 Wood, W. D.

*Corporals*

Benfield, J. K.  
 Blaylock, C. S.  
 Brooks, A. L.  
 Cannon, J. E.  
 Coakley, F. H.  
 Coakley, G. E.  
 Dukes, R. C.  
 Henderson, J. R.



### Second Lieutenants

Windham, J. M.  
Wyant, Y. W.  
Yelton, L. M.

### First Sergeants

Rhyne, W. A.                      Cook, H. L.

### Supply Sergeants

Bridges, M. L.                      Stoudemire, G. A.

### Sergeants

Bettis, J. R.  
Cason, L. L.  
Denny, H. S.  
Hiott, E. D.  
Parrott, D. L.  
Rex, G. L.

## REGIMENTAL ORGANIZATION

## FIRST REGIMENT

|                                 |                           |
|---------------------------------|---------------------------|
| Colonel H. U. Bookhart          | Regimental Commander      |
| Lieutenant Colonel F. W. Durban | Regimental Executive      |
| Captain W. S. Coleman           | Regimental Adjutant       |
| First Lieutenant F. A. Thompson | Regimental Chaplain       |
| Master Sergeant C. B. Lawton    | Regimental Sergeant Major |
| Staff Sergeant G. C. Commander  | Regimental Color Sergeant |
| Staff Sergeant W. M. McGinty    | Regimental Color Sergeant |

## BATTALION ORGANIZATION

## FIRST BATTALION

|                                     |                     |
|-------------------------------------|---------------------|
| Lieutenant Colonel J. F. Brailsford | Battalion Commander |
| Captain C. M. Aull                  | Battalion Executive |
| First Lieutenant R. F. Anderson     | Battalion Adjutant  |
| First Lieutenant R. W. Ribenbark    | Supply Officer      |
| Staff Sergeant P. H. Nelson         | Sergeant Major      |

COMPANY "A"      COMPANY "B"      COMPANY "C"      COMPANY "D"

## Captains

Covington, H. M.      Troy, H. P.      Shepherd, E. W.      Woods, C.

### First Lieutenants

|              |                    |                   |                      |
|--------------|--------------------|-------------------|----------------------|
| Scott, B. E. | McCurry, E. T. (*) | McLeod, B. F. (*) | Covington, J. C. (*) |
| Young, E. L. | Botts, E. O.       | Talbert, J. N.    | Cox, W. T.           |
|              | Gray, Z.           | Traywick, H. V.   | Frazier, J. B.       |
|              | Stanfield, T. F.   |                   | Hughes, D. G.        |
|              |                    |                   | Mitchell, W. B. R.   |

(\*) Indicates Company Executive Officer.

*Second Lieutenants*

Bailey, J. R.  
 Black, C. V.  
 Brice, F. J.  
 Chovan, P. B.  
 Goins, C. A.  
 Jackson, W. O.  
 Moorer, T. R.  
 Pearson, B. F.  
 Pennington, C. W.

*First Sergeants*

Darwin, D. P.      Richardson, T.      Horton, L. S.      Stallworth, J. M.

*Supply Sergeants*

Gillespie, R. M.      Crumbly, J. C.      Almeida, J. L.      Moorman, R. W.

*Sergeants*

|                  |                  |                  |                  |
|------------------|------------------|------------------|------------------|
| Anderson, C. E.  | Able, T. A.      | Ackerman, M. W.  | Bryant, L.       |
| Anderson, G. J.  | Acker, H. L.     | Ackerman, W. M.  | Embody, C. F.    |
| Anderson, W. D.  | Agnew, R. E.     | Adams, P. H.     | Guyton, G. G.    |
| Ballenger, P. C. | Bradbury, D. W.  | Caughman, R. H.  | Hendricks, G. H. |
| Farmer, J. G.    | Creel, L. E.     | Cauthen, R. H.   | Keel, S. T.      |
| Fender, W. C.    | Earle, Joe B.    | Crews, M. S.     | Lindsay, R. J.   |
| Fogle, H. L.     | Fleetwood, H. G. | Forsythe, R. G.  | Little, J. F.    |
| Forester, R. C.  | Fuseler, H. W.   | Frazier, J. R.   | Little, W. H.    |
| Garrison, J. S.  | Hall, H. P.      | Fulmer, R. B.    | McFadden, J. B.  |
| Huff, R. B.      | Harper, J. J.    | Greene, W. A.    | McLaurin, K. F.  |
| Jones, H. C.     | Jeffcoat, B. D.  | Hubbard, R. C.   | Manning, W. H.   |
| Kennedy, G. C.   | Johnson, J. W.   | Huskey, J. B.    | Moore, G. S.     |
| Levin, J. H.     | Muller, J. C.    | Kearse, W. H.    | Okurowski, W. B. |
| Morgan, P. E.    | Pender, M. T.    | Kolb, K. W.      | Payne, J. E.     |
| Orr, J. L.       | Shirley, Joe A.  | Macartney, O. K. | Sharpe, R. G.    |
| Pugh, W. E.      | Wray, C. V.      | Oswald, H. C.    | Shealy, M. C.    |
| Redfern, I. C.   |                  | Paulling, B. M.  | Shealy, W. L.    |
| Webb, G. R.      |                  | Shuler, G.       | Smith, T. L.     |
|                  |                  | Waters, G. H.    | Thomas, R. L.    |
|                  |                  |                  | Trexler, B. D.   |

*Corporals*

|                  |                 |                 |                   |
|------------------|-----------------|-----------------|-------------------|
| Alexander, H. F. | Awtrey, W. E.   | Benton, D. A.   | Blessing, J. E.   |
| Braithewaite, R. | Burley, B. B.   | Chuharski, J.   | Buchanan, H. L.   |
| Darby, W. M.     | Byrd, W. C.     | Coyle, B. M.    | Cameron, A. N.    |
| DuRant, H. S.    | Cline, W. E.    | Crayton, T. W.  | Clawson, C. H.    |
| Herndon, F. M.   | Cooler, E. W.   | Dent, H. N.     | Deitz, J. F.      |
| Lowe, W. H.      | Holley, E. B.   | LeMaster, H. L. | Horton, F. H.     |
| Miller, J. H.    | Klugh, T. S.    | Lytton, J. L.   | Horton, J. I.     |
| Poole, C. B.     | Lucas, T. E.    | Propst, R. C.   | Hunter, J. V.     |
| Ross, E. A.      | Matthews, W. B. |                 | Maness, L. E.     |
| Sullivan, J. W.  | Platt, J. M.    |                 | Nickles, W. B.    |
|                  | Ross, D. J.     |                 | Parrish, B. C.    |
|                  |                 |                 | Pearce, R. R.     |
|                  |                 |                 | Richardson, J. H. |
|                  |                 |                 | Trobaugh, A. K.   |

## BATTALION ORGANIZATION

## SECOND BATTALION

|                                |                          |
|--------------------------------|--------------------------|
| Lieutenant Colonel J. H. Guess | Battalion Commander      |
| Captain J. O. Sweeny           | Battalion Executive      |
| First Lieutenant E. H. Thomas  | Battalion Adjutant       |
| First Lieutenant V. M. Shell   | Battalion Supply Officer |
| Staff Sergeant G. M. McMillan  | Battalion Sergeant Major |

## COMPANY "E"

## COMPANY "F"

## COMPANY "G"

*Captains*

Knox, F. T.

Watson, J. D.

Carlson, P.

*First Lieutenants*

Davis, N. R. (\*)

Avinger, H. C. (\*)

Pregnall, A. H. (\*)

Loyless, E. M.

Gaskins, J. L.

Boyd, S. J.

Mackintosh, J. D.

Wilks, J. L.

Citron, L. A.

*First Sergeants*

King, R. A.

Burdette, E. K.

Spires, C. E.

*Supply Sergeants*

Sanders, A. W.

Williams, A. V.

Planck, C. G.

*Sergeants*

Ariail, R. L.

Baker, J. M.

Bateman, F. F.

Bagnal, H. T.

Cochran, R. P.

Bell, W. M.

Bradford, S. R.

Fellers, R. C.

Bethea, W. H.

Dixon, J. S.

Foster, W. W.

Coggins, A. E.

Ferguson, T. D.

Gardner, L. E.

Copley, W. M.

Hearon, R. L.

Hanna, L. G.

Gilliam, L. G.

Hunt, B. D.

McDowell, E. B.

Gore, J. P.

Jones, J. B.

McGowan, S. B.

Gray, F. F.

Lawton, M. R.

McLaurin, C. H.

Hall, L. W.

McPhail, F. E.

Mackintosh, D. M.

Hunter, J. C.

Mobley, F. B.

Marett, H. D.

Johnson, H. A.

Newton, C. G.

Moorer, D. F.

Land, J. S.

Rushing, B. T.

O'Neal, J. B.

Lanford, L. E.

Simpson, A. T.

Robinson, J. E.

McClure, G. W.

Van Wyck, W. O.

Rogers, J. R.

McMakin, G. C.

West, E. C.

Manning, L. W.

Zeigler, C. M.

Massey, L. M.

Pruitt, S. H.

Roper, D. B.

Smith, D. T.

Summers, C. B.

Webb, H. N.

West, T. P.

Woods, T. D.

(\*) Indicates Company Executive Officer.

*Corporals*

|                   |                 |                  |
|-------------------|-----------------|------------------|
| Bethea, C. J.     | Bischoff, R. J. | Boland, T. S.    |
| Bussey, W. W.     | Brady, W. P.    | Culton, R. S.    |
| Caughman, R. B.   | Coward, W. A.   | Dickerson, G. L. |
| Cottingham, J. E. | Groce, L. A.    | Dreisbach, L. D. |
| Denny, E. R.      | Hallman, W. E.  | Edwards, J. L.   |
| Garwood, S. H.    | Holley, F. L.   | Harper, S. D.    |
| Lytton, K. G.     | Neil, J. M.     | Henry, G. C.     |
| Riddle, J. T.     | Redfern, R. B.  | McAlister, P. W. |
| Seabrook, P. D.   | Taylor, J. O.   | Mace, J. S.      |
| Styron, W. T.     | Weaver, A. E.   | Nance, P. M.     |
| Walker, R. H.     | Wood, F. A.     | Rogers, F. E.    |
| Wearn, W. C.      |                 | Whitehead, J. B. |
|                   |                 | Wright, C. R.    |

*REGIMENTAL ORGANIZATION**SECOND REGIMENT*

|                                     |                |
|-------------------------------------|----------------|
| Colonel F. Hughes                   | Commander      |
| Lieutenant Colonel T. R. Bainbridge | Executive      |
| Captain C. C. Gaston                | Adjutant       |
| First Lieutenant S. L. Skardon      | Chaplain       |
| Master Sergeant C. E. Littlejohn    | Sergeant Major |
| Staff Sergeant P. T. Garrett        | Color Sergeant |
| Staff Sergeant T. A. Murrah         | Color Sergeant |

*BATTALION ORGANIZATION**FIRST BATTALION*

|                                  |                          |
|----------------------------------|--------------------------|
| Lieutenant Colonel J. B. Moore   | Battalion Commander      |
| Captain W. B. Boyle              | Battalion Executive      |
| First Lieutenant J. H. Radcliffe | Battalion Adjutant       |
| First Lieutenant J. R. Harrison  | Battalion Supply Officer |
| Staff Sergeant L. B. Smith       | Battalion Sergeant Major |

*COMPANY "A"**COMPANY "B"**COMPANY "C"**Captains*

|           |             |                |
|-----------|-------------|----------------|
| Crook, M. | Pope, D. T. | Herlong, H. K. |
|-----------|-------------|----------------|

*First Lieutenants*

|                     |                  |                    |
|---------------------|------------------|--------------------|
| Carlisle, W. A. (*) | Jones, E. M. (*) | Zeigler, W. B. (*) |
| Abrams, E. P.       | Cathcart, J. W.  | Avent, H. E.       |
| Thackston, W. H.    | Miley, W. F.     | Kelly, J. W.       |

*Second Lieutenants*

Lawton, P. S.

*First Sergeants*

|              |             |             |
|--------------|-------------|-------------|
| Liles, J. R. | McKeown, H. | Gray, J. F. |
|--------------|-------------|-------------|

(\*) Indicates Company Executive Officer.



*Supply Sergeants*

|                |             |               |
|----------------|-------------|---------------|
| Hammond, J. G. | Hunt, F. M. | Rivers, P. F. |
|----------------|-------------|---------------|

*Sergeants*

|                  |                 |                   |
|------------------|-----------------|-------------------|
| Blair, C. H.     | Boliver, W. C.  | Brewer, H.        |
| Bouton, W. I.    | Brady, H. G.    | Bryant, C. K.     |
| Brown, R. F.     | Chandler, W. O. | Buchanan, A. M.   |
| Cathcart, T. M.  | Cooley, R. L.   | Bullington, W. A. |
| Cleveland, E. P. | Eadon, J. R.    | Crosby, R. A.     |
| Collins, W. D.   | Eidson, W. L.   | Epting, S. W.     |
| Dunn, L. E.      | Ellison, T. W.  | Gaillard, W. S.   |
| Fellers, L. O.   | Henson, S.      | Holcombe, R. O.   |
| Furtick, O. K.   | Ivey, J. D.     | Horne, W. L.      |
| Gardner, E. G.   | Johnson, L. M.  | Miller, G. M.     |
| Harter, J. R.    | Kennedy, H. M.  | Mills, W. L.      |
| Hawkins, A.      | Lindsay, J. B.  | Poore, F. J.      |
| Hester, B. F.    | Lowder, J. M.   | Snipes, G. L.     |
| Huckaby, J. P.   | Mills, F. C.    | Williams, S. B.   |
| Jay, J. E.       | Plowden, W. M.  | Winfield, J. A.   |
| Kerhulas, T. E.  | Willis, M. D.   |                   |
| McCord, R. L.    | Woodward, L. J. |                   |
| Mays, H. B.      |                 |                   |
| Propst, M. C.    |                 |                   |
| Quantz, W. P.    |                 |                   |
| Reid, S. F.      |                 |                   |
| Vassey, H. M.    |                 |                   |
| Webb, B. L.      |                 |                   |

*Corporals*

|                  |                    |                 |
|------------------|--------------------|-----------------|
| Bradford, H.     | Brockman, W. D.    | Bull, B. R.     |
| Driver, A. H.    | Christopher, J. D. | Davis, S. E.    |
| Ellis, W. N.     | Fairey, P. W.      | Early, W. F.    |
| Ferris, L. R.    | Foster, H. B.      | Freeman, E. A.  |
| Holmes, F. S.    | McMaster, R. G.    | Kirkland, R. W. |
| Jackson, C. C.   | Ross, G.           | McMahan, E. O.  |
| Jones, J. Dargan | Simpson, H. V.     | Murray, B. D.   |
| McKeown, W. H.   | Stevenson, J. H.   | Rodgers, J. R.  |
| Owen, S. E.      |                    |                 |
| Pitts, W. R.     |                    |                 |
| Robinson, H. H.  |                    |                 |
| Wentzel, D. B.   |                    |                 |

*BATTALION ORGANIZATION**SECOND BATTALION*

|                                  |                |
|----------------------------------|----------------|
| Lieutenant Colonel T. W. Talbert | Commander      |
| Captain T. H. Heatwole           | Executive      |
| First Lieutenant F. E. Culvern   | Adjutant       |
| First Lieutenant W. L. Lafaye    | Supply Officer |
| Staff Sergeant S. C. Hunt        | Sergeant Major |

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| COMPANY "E" | COMPANY "F" | COMPANY "G" | COMPANY "H" |
|-------------|-------------|-------------|-------------|

*Captains*

|                 |               |               |               |
|-----------------|---------------|---------------|---------------|
| McAlhany, H. J. | Garick, L. T. | Dunlap, F. A. | Ferree, R. J. |
|-----------------|---------------|---------------|---------------|

*First Lieutenants*

|                   |                   |                  |                    |
|-------------------|-------------------|------------------|--------------------|
| Hiers, M. D. (*)  | Garner, A. R. (*) | Ardis, T. B. (*) | Dobson, R. M. (*)  |
| Howard, T. G.     | Bracey, J. H.     | Salvo, G. C.     | Bell, T. E.        |
| Montgomery, J. B. | Johnson, M. C.    | Vaughan, C. L.   | Scarborough, F. H. |

*First Sergeants*

|                 |            |              |              |
|-----------------|------------|--------------|--------------|
| Ragsdale, W. J. | May, D. R. | Sells, C. K. | Jones, C. L. |
|-----------------|------------|--------------|--------------|

*Supply Sergeants*

|               |                    |                   |              |
|---------------|--------------------|-------------------|--------------|
| Farnum, C. O. | Scarborough, R. W. | Yarborough, B. H. | Houck, J. L. |
|---------------|--------------------|-------------------|--------------|

*Sergeants*

|                 |                 |                  |                  |
|-----------------|-----------------|------------------|------------------|
| Bozard, L. S.   | Bird, E. R.     | Arrington, L. R. | Bryan, C. B.     |
| Burns, P. J.    | Bryant, R. H.   | Bull, L. H.      | Grimball, T. P.  |
| Campbell, W. F. | Croxson, E. F.  | Burriss, T. M.   | Jordan, J. E.    |
| Craven, F. M.   | Goodson, T. E.  | Carson, C. R.    | McKenzie, S. A.  |
| Davis, T. F.    | Hackett, C. B.  | DeMai, N.        | Mazinski, R. T.  |
| Harling, R. E.  | Hardee, J. C.   | Ehrhardt, J. S.  | Moon, H. D.      |
| Irby, G. S.     | Harris, H. L.   | Ferguson, H. E.  | Parrish, J. W.   |
| Jordan, W. W.   | Hodges, R. F.   | Harley, T. R.    | Rutland, L. E.   |
| Kirby, M. D.    | Jackson, W. L.  | Harrison, B. S.  | Smith, M. T.     |
| Lane, C. S.     | Lominack, E. K. | Hart, B. B.      | Truesdale, J. M. |
| Mappus, W. A.   | Oates, W. J.    | Hayes, C. B.     | Woody, R. E.     |
| Marshall, R. B. | Putnam, H. D.   | Heriot, J. D.    |                  |
| Salley, W. B.   | Smith, G. L.    | Hughey, J. D.    |                  |
| Stewart, E. R.  | Todd, R.        | Hurst, F. M.     |                  |
| Sutton, A. D.   | Triplett, C. H. | Irick, E. F.     |                  |
| Truluck, J. W.  |                 | Lemmon, J. C.    |                  |
| Wright, M. E.   |                 | Miller, H. F.    |                  |
|                 |                 | Murph, J. L.     |                  |
|                 |                 | Myers, C. O.     |                  |
|                 |                 | Padgett, C. A.   |                  |
|                 |                 | Ross, H. J.      |                  |
|                 |                 | Shelley, R. C.   |                  |
|                 |                 | Stokes, F. H.    |                  |
|                 |                 | Wade, W. B.      |                  |
|                 |                 | Wallace, J. W.   |                  |
|                 |                 | Ward, H. E.      |                  |
|                 |                 | Wells, F. E.     |                  |

*Corporals*

|                  |                   |                   |                   |
|------------------|-------------------|-------------------|-------------------|
| Ficklin, M. T.   | Carder, W. H.     | Bates, R. O.      | Brown, R. H.      |
| Fletcher, G. L.  | Colvin, R. E.     | Castles, J. F.    | Martin, E. F.     |
| Lesesne, E. H.   | Copeland, H. C.   | DesPortes, J. A.  | Osteen, R. T.     |
| Mauney, R. V.    | Garner, J. A.     | Freeman, P. N.    | Padgette, C. D.   |
| Osborne, J. H.   | Hempstead, R. L.  | Gregory, J. L.    | Southerlin, J. R. |
| Pitchford, C. W. | London, J. R.     | Herrington, C. L. | Thackston, J. E.  |
| Riddick, A. T.   | Martin, J. L.     | Kivett, T. L.     | Wilson, E. H.     |
| Rutledge, T. B.  | Shirley, James A. | Nalley, A. C.     |                   |
| Smith, E. H.     | Sterghos, J. D.   | O'Shields, W. R.  |                   |
|                  | Welch, R. W.      | Smith, P. F.      |                   |
|                  | Wily, R. R.       | Sparks, L. M.     |                   |
|                  |                   | Thornburg, R. W.  |                   |
|                  |                   | Vereen, L. C.     |                   |

(\*) Indicates Company Executive Officer.

# GRADUATES OF 1938

Students who rank in the upper ten per cent of the class  
are graduated with honor

## SCHOOL OF AGRICULTURE

### *Bachelor of Science Degree*

#### *Agriculture—Agricultural Economics Major*

|                                              |                                          |
|----------------------------------------------|------------------------------------------|
| Alpheus Victor Bethea-----Dillon             | Lewis Daniel Malphrus-----Ridgeland      |
| William Green DesChamps, Jr.-----Bishopville | Henry Green Muldrow, Jr.-----Bishopville |
| Arthur Gibson Fletcher-----McColl            | Clarence Edward Pike-----Calhoun         |
|                                              | Terry Edward Richardson-----Barnwell     |

#### *Agriculture—Agronomy Major*

|                                                 |                                             |
|-------------------------------------------------|---------------------------------------------|
| George William Boozer, Jr.-----Leesville        | James Roscoe Huff-----Piedmont              |
| James Thompson Brannon-----Cassatt              | Joseph Thaddeus McCrackin, Jr.-----Newberry |
| John Edmond Gandy, Jr.-----Niagara Falls, N. Y. | Webb Rampy Mouchet-----Starr                |
| William Douglas Gregorie, Jr.-----Yonges Island | Charles Baring Searson, Jr.-----Hampton     |
|                                                 | William Claude Smith-----Johnston           |

#### *Agriculture—Animal Husbandry Major*

|                                          |                                         |
|------------------------------------------|-----------------------------------------|
| William Lide Bryant-----Marion           | Richard Henry Holstein, Jr.-----Monetta |
| John Thomas Graves-----Ruby              | Dendy Kyle Josey-----Bishopville        |
| Walter Allen Hills-----Johns Island      | Draytford Richardson-----Gresham        |
| Grady Henry Holman, Jr.-----Blakely, Ga. | *Johnnie Carroll Shelley-----Marion     |

#### *Agriculture—Dairy Major*

|                                            |                                        |
|--------------------------------------------|----------------------------------------|
| William McKellar DuPre-----Walhalla        | *William Aull Leitner-----Marion       |
| Thomas Green Legare, Jr.-----Yonges Island | Raymond Markley Murray-----Spartanburg |
| William Oliver Payne-----Greenville        |                                        |

#### *Agriculture—Entomology Major*

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| *John Earle McCurry-----Anderson  | Eley Harrison McEachern-----Ridgeway |
| Edward Holman Smith-----Abbeville |                                      |

#### *Agriculture—Horticulture Major*

|                                            |                                      |
|--------------------------------------------|--------------------------------------|
| Frederick John Aichele, Jr.-----Charleston | Henry Mitchell-----Greenville        |
| Ernest Edward Carnes-----Hartsville        | Joseph Peter Parker-----Graniteville |
| William Coleman Curry-----Gray Court       | Patrick Henry Starr-----Walterboro   |
| James Clinkscales Hoffman-----Blythewood   | Zeb Vance, Jr.-----Owings            |
| Boyce Miller, Jr.-----Greenville           | Thomas Lawton Vereen-----Latta       |
| George Henry Wade-----New York City        |                                      |

#### *Agricultural Engineering*

|                                           |                                        |
|-------------------------------------------|----------------------------------------|
| Capers Bartow Bull-----Cameron            | William Player Law, Jr.-----Darlington |
| St. Clair Prothro Guess, Jr.-----Denmark  | William Newton McAdams-----Iva         |
| Richard Howard Langston, Jr.-----Florence | Heyward Harold McKinney-----Chesnee    |
| Frank Cox Wardlaw-----Belton              |                                        |

#### *Agricultural Economics and Animal Husbandry Major*

|                                  |
|----------------------------------|
| Alfred William Bethea-----Dillon |
|----------------------------------|

## SCHOOL OF CHEMISTRY

### *Bachelor of Science Degree*

#### *Chemistry*

|                                         |                                            |
|-----------------------------------------|--------------------------------------------|
| William Curry Cunningham-----Williston  | Grover Cleveland Paulsen, Jr.-----Ehrhardt |
| Thomas Earl Hall-----Dillon             | *Earl Charles Ray-----Andrews              |
| Donald Edward Hudgin-----Greenville     | *Murray Jack Sarlin-----Liberty            |
| Emanuel Lawrence Zalants-----Greenville |                                            |

\*With Honor.

## SCHOOL OF ENGINEERING

*Bachelor of Science Degree**Architecture*

|                             |                  |                            |               |
|-----------------------------|------------------|----------------------------|---------------|
| Richard Swicegood Byrd----- | Andrews          | James Mathews Hunt-----    | Elberton, Ga. |
| Donald Brevard Clayton, Jr. |                  | John William Linley-----   | Anderson      |
|                             | Birmingham, Ala. | Thomas Edward Stanley----- | Marion        |
| John Hinds Truluck,         |                  | Jr.-----                   | Lynchburg     |

*Bachelor of Chemical Engineering Degree*

|                              |                  |                             |                 |
|------------------------------|------------------|-----------------------------|-----------------|
| John Wesley Adams, Jr.       |                  | Thomas Eugene Ramsay-----   | Calhoun         |
|                              | Bloomington, Ga. | Harold Boyd Risher-----     | Charleston      |
| Frank Eugene Bobo, Jr.-----  | Gray Court       | Charles Carr Schirmer-----  | Charleston      |
| John Christian Boesch-----   | Charlotte, N. C. | Charles Edward Seigler----- | Anderson        |
| Joseph Screven Brewster----- | Cedartown, Ga.   | Dave Robinson Stokely-----  | New Port, Tenn. |
| Jack Howard Oliver-----      | Savannah, Ga.    | Lake Eric Terrell, Jr.----- | Greenville      |
| William Julius Payne-----    | Charlotte, N. C. | Albert Russell Waters-----  | Savannah, Ga.   |

*Bachelor of Civil Engineering Degree*

|                                   |               |                                |               |
|-----------------------------------|---------------|--------------------------------|---------------|
| Joseph Rudolph Ambrose-----       | Georgetown    | John William Morgan, Jr.-----  | Savannah, Ga. |
| Henry Downs Byrd-----             | Clinton       | Otis Foster Morgan-----        | Laurens       |
| Wallace Robert Cheves-----        | Savannah, Ga. | James McIver Speights-----     | Walterboro    |
| John Frederick Huchting, Jr.----- | Charleston    | Guy Matthews Tarrant, Jr.----- | Columbia      |

*Bachelor of Electrical Engineering Degree*

|                                 |                     |                                  |             |
|---------------------------------|---------------------|----------------------------------|-------------|
| Lewellyn T. Boatwright, Jr.     |                     | *Samuel Andral Ferguson-----     | Eastover    |
|                                 | Ridge Spring        | Herbert Cohen Green-----         | Florence    |
| James Kibler Chapman-----       | Greenwood           | Theodore Marion Hoefer-----      | Columbia    |
| James Miles Culpepper-----      | Dawson, Ga.         | Shelton Otis Hoffman-----        | McBee       |
| John Wesley Davis-----          | Charleston          | Edward Vandiver Horton-----      | Belton      |
| John Henry Disher, Jr.-----     | Charleston          | Robert Maxwell Jenkins, Jr.----- | St. Charles |
| *William Walter Dukes, Jr.----- | Orangeburg          | Jefferson Nicholas King-----     | Williamston |
| Henry Miles Faris-----          | Clover              | Rufus Earl Lawrence, Jr.-----    | Effingham   |
| Richard John Farmer-----        | Charleston          | Calvin Miller McKeown-----       | Chester     |
|                                 | Thomas Center Reed, | Jr.-----                         | Sumter      |

*Bachelor of Mechanical Engineering Degree*

|                               |                 |                               |            |
|-------------------------------|-----------------|-------------------------------|------------|
| Alexander Charles Crouch----- | Clemson         | Dan Somers Lesesne-----       | Charleston |
| Richard Maynard Denny-----    | Bishopville     | *Robert Theodore Matthew----- | Charleston |
| Marion Rollins DeWitt-----    | Darlington      | Evan Norton-----              | Conway     |
| Edward Joseph Galvanek-----   | Carteret, N. J. | Allen Eugene Stalvey-----     | Conway     |
| Benjamin Smith Jordan-----    | Wadley, Ga.     | John Doyle Varn, Jr.-----     | Charleston |

## SCHOOL OF GENERAL SCIENCE

*Bachelor of Science Degree*

|                                  |                       |                                  |                   |
|----------------------------------|-----------------------|----------------------------------|-------------------|
| *Frank Eubank All-----           | Allendale             | John William Murray-----         | Charleston        |
| Frank Wingard Bagnal-----        | Sumter                | Milton Norton-----               | Gibson, N. C.     |
| Francis Laney Bell-----          | Lancaster             | James William Parker, Jr.-----   | Ebenezer          |
| Forrest Blanton Bessinger-----   | Olar                  | Alfred Cook Payne-----           | Cartersville, Ga. |
| Landis Owen Carter-----          | Varnville             | Joseph Travis Seawell-----       | Greenville        |
| David Millar Cullen-----         | Denmark               | John L. Settle-----              | Landrum           |
| *Russell William Dorn-----       | Jersey City, N. J.    | Beverly Norton Skardon-----      | Walterboro        |
| Kennedy Bryan Dwight-----        | Wedgefield            | Hugh Gregorie Stokes, Jr.        |                   |
| Tom Bennett Gresham, Jr.-----    | Lyman                 |                                  | Montgomery, Ala.  |
| Eugene Daniel Guyton-----        | Marion                | *Paul Kent Switzer-----          | Union             |
| Frederick Vivian Harris-----     | West Palm Beach, Fla. | Kenneth Notley Vickery-----      | Hartwell, Ga.     |
|                                  | Huff-----             | Ralph Eugene Watkins, Jr.-----   | Pendleton         |
| Walter DuBose-----               | Hartsville            | John Cornish Wilkinson, Jr.----- | Spartanburg       |
| Riley Venning Jackson-----       | Wedgefield            | Charles Alan Williamson-----     |                   |
| William Feige Krickhan, Jr.----- | Charleston            |                                  | Ridgewood, N. J.  |
| *William Alexander Mitchell----- | Clemson               | Robert George Witherspoon-----   | Anderson          |
| Marshall Milford Motes-----      | Mountville            | John Dendy McBrearty-----        | Anderson          |

\*With Honor.



## SCHOOL OF TEXTILES

*Bachelor of Science Degree**Textile Chemistry*

|                              |                  |                               |               |
|------------------------------|------------------|-------------------------------|---------------|
| Paul Robert Abercrombie..... | Gray Court       | Allen Wise Taylor.....        | Charleston    |
| Robert Milton Denny.....     | Graniteville     | William Francis Thompson..... | North Augusta |
| Earl Houston Fuller.....     | Columbia         | William Patrick Todd.....     | Laurens       |
| Edward Sture Olson.....      | Asheville, N. C. | Thomas Turner Wilheit.....    | Augusta, Ga.  |
| Rembert James Reynolds.....  | Great Falls      | Henry A. Woodhead, Jr.....    | Graniteville  |
| Robert William Robinson..... | Columbia         |                               |               |

*Textile Engineering*

|                                |                          |                                      |                   |
|--------------------------------|--------------------------|--------------------------------------|-------------------|
| John William Anderson.....     | Greenwood                | Karl Frederick Henry Inderfurth..... | Mystic, Conn.     |
| John Gibson Auerhamer.....     | Edgefield                | Robert Jethro Jones.....             | Macon, Ga.        |
| Power Weathers Bethea, Jr..... | Greenville               | Harold Legare Lawhon.....            | Union             |
| John William Bolt.....         | Laurens                  | Hubert Butler McAlister.....         | Pendleton         |
| Louis Melvin Boulware.....     | Newberry                 | Robert Ray McGee, Jr.....            | Greenwood         |
| Alvin Frank Davis.....         | Greer                    | John Wightman McSwain.....           | Raleigh, N. C.    |
| Woodrow Elbert Dunn.....       | Sylacauga, Ala.          | John Donald Marshall.....            | Savannah, Ga.     |
| John Henry Edwards.....        | Batesburg                | Samuel Claud Mayne, Jr.....          | Winder, Ga.       |
| Alfred Julius Folger.....      | Pickens                  | Alfred Gerry New.....                | Greenville        |
| *Harry Geisberg.....           | Anderson                 | Tom Earle Peden.....                 | Gray Court        |
| Robert Lee Harlike.....        | Florence                 | James Henry Riddle.....              | York              |
| William Walter Harris, Jr..... | Rockingham, N. C.        | Robert Chambers Spears.....          | Union             |
| William Benjamin Harry.....    | Grover, N. C.            | *Thomas Izlar Stafford.....          | Charleston        |
|                                | Darwin Taylor Wendt..... |                                      | East Moline, Ill. |

*Weaving and Designing*

|                            |        |                              |          |
|----------------------------|--------|------------------------------|----------|
| Arnold Lee Sanders.....    | Pelzer | *John Clinton Shell, Jr..... | Laurens  |
| *Alvin Stokes Sanders..... | Camden | Arthur Charles Verner.....   | Piedmont |

## SCHOOL OF VOCATIONAL EDUCATION

*Bachelor of Science Degree**Vocational Agricultural Education*

|                               |                             |                               |                   |
|-------------------------------|-----------------------------|-------------------------------|-------------------|
| David Ramsey Chastain.....    | Pickens                     | *Jewel Clint Morgan.....      | Sale Creek, Tenn. |
| Claude Henson Cooler.....     | Ridgeland                   | Andrew Gilliam Prince.....    | Abbeville         |
| Dan William Evans.....        | Elloree                     | Robert Manning Reynolds.....  | Lamar             |
| Thomas Hugh Evans.....        | Andrews                     | Julian Basil Rickenbaker..... | Cameron           |
| Wilder Sexton Funk.....       | St. Stephen                 | Howard Calhoun Rogers.....    | Clio              |
| John Mitchell Gantt.....      | Jefferson                   | William West Rush.....        | Camden            |
| Charles Francis Gibson.....   | Richburg                    | Clifton Reece Saverance.....  | Elliott           |
| Frank Manning Hall.....       | Iva                         | Philip Claudius Sprawls.....  | Montmorenci       |
| William Franklin Hancock..... | Ruby                        | Archie Clifford Thomas.....   | Hampton           |
| Thomas Robinson Hanna.....    | Blacksburg                  | Swain Norris Thompson.....    | Starr             |
| Claudieth Earl Harmon.....    | Gilbert                     | *Alvin Ralph Wham.....        | Simpsonville      |
| Nicholas Paul Joyner.....     | Ward                        | John Boyce Williams.....      | Dacusville        |
| McMillan Lane.....            | Dillon                      | James Edwin Wright.....       | Woodruff          |
| Hubert Edward Miller.....     | Ridgeland                   | Jacob Frederick Wyse.....     | Columbia          |
|                               | LeGrand Iris Yarbrough..... |                               | Scranton          |

*Education*

|                             |              |
|-----------------------------|--------------|
| Jesse Upshaw Pritchett..... | Griffin, Ga. |
|-----------------------------|--------------|

*Industrial Education*

|                            |                           |                         |                 |
|----------------------------|---------------------------|-------------------------|-----------------|
| Charles Leander Helms..... | Bethune                   | Jack Brown Kirkley..... | Kershaw         |
|                            | Coit Barnwell Lytton..... |                         | Gastonia, N. C. |

*Textile Industrial Education*

|                            |         |                            |         |
|----------------------------|---------|----------------------------|---------|
| Edward Lamar Kitchens..... | Laurens | Harry Russell McGowan..... | Chester |
|----------------------------|---------|----------------------------|---------|

## PROFESSIONAL DEGREE IN CIVIL ENGINEERING

|                              |          |
|------------------------------|----------|
| William Hayne Mills, Jr..... | Columbia |
|------------------------------|----------|

\*With Honor.

*FORTY-SECOND COMMENCEMENT, JUNE, 1938*

*Baccalaureate Sermon*

THE REVEREND ERNEST NEAL ORR

*Pastor of The Tabernacle Associate Reformed Presbyterian Church*

Charlotte, North Carolina

*Address to Graduating Class*

JOHN TEMPLE GRAVES, II

Birmingham, Alabama

BACHELOR OF SCIENCE DEGREES CONFERRED  
FEBRUARY 1, 1938

*Agriculture—Animal Husbandry Major*

Kenneth Stewart Laney.....Cheraw

*Agriculture—Horticulture Major*

Frank Moultrie Hamilton.....Spartanburg

*Agricultural Engineering*

Charles Baskin Evans.....Abbeville  
Edgar DuRant Hayes.....Little Rock

*General Science*

Clarence Edwin Ballentine.....Anderson  
Jarvis Barnes.....Brunson  
Robert Elliott Downey.....Jacksonville, Fla.  
George Aimar Durban, Jr.....Aiken  
Thomas Woodrow Eatmon.....Alvin  
Livingstone Rhett Wever.....Savannah, Georgia

*Vocational Agricultural Education*

Robert Harold Martin.....Simpsonville  
Arthur Richard Thompson.....Bowman

*Education*

Garnett Milton Martin, Jr.....Westminster

*Industrial Education*

William Herbert Cannon.....Rock Hill

## DEGREES CONFERRED, SEPTEMBER 13, 1938

*Bachelor of Science**Agriculture—Agronomy Major*

William Evans Duvall, Jr.-----Cheraw

*Agriculture—Animal Husbandry Major*

Jeremiah Glenn McMeekin-----Spartanburg

Thomas Sloan McConnell-----Anderson

Ralph Dozier Crosby-----Miley

*Agriculture—Dairy Major*

Hinson Lebby Mikell-----Charleston

*Agricultural Engineering*

John Murrell Dukes, Jr.-----Sedalia

*General Science*

Stuart Edward Campbell-----Clemson

*Textile Engineering*

Henry Duncan Adams-----Clio

William Fred Davis-----Arcadia

John Richard Federline, III-----Belton

Ziza Guy Willis-----Spartanburg

*Weaving and Designing*

Walter Johnson Crenshaw-----Great Falls

*Vocational Agricultural Education*

William Hutson Abrams-----Leo

Broughton Fulton Childress-----Six Mile

Joel Osmer Crawford-----Columbia

Shuler Hiller Houck-----Cameron

Lawrence Hugh McCallum-----Lugoff

Eugene Wallace Rochester-----Salem

Loy Warwick Smith-----Columbia

*Industrial Education*

Frank Gilbert Ballenger-----Greenville

Cicero Pinckney Mooror-----Harleyville

*Textile Industrial Education*

Campbell Coleman Brigman, Jr.-----Lancaster

Edward Henry Shanklin-----Clemson

*Bachelor of Chemical Engineering*

Henry Jake Rawl-----Lexington

*Bachelor of Mechanical Engineering*

Jeff Davis, Jr.-----Savannah, Ga.

Lee Vandoland Graham, Jr.-----Savannah, Ga.

Rawley White Martin-----Fort Mill

## LIST OF STUDENTS, FIRST SEMESTER, 1938-1939

The names are arranged in alphabetical order and following the names are symbols indicating classes and courses. The numerals preceding the course symbols refer to classes, viz.: 1, Freshman; 2, Sophomore; 3, Junior; 4, Senior. (Classified as of first semester. See page 58.) A-Agriculture (abbreviation indicates major course for seniors): Agr-Agronomy; AH-Animal Husbandry; D-Dairy; Ag Ec-Agricultural Economics; Ag Engr-Agricultural Engineering; Ent-Entomology; Hort-Horticulture; GS-General Science; Ar-Architecture; C-Chemistry; E-Engineering (all engineering freshmen); CE-Civil Engineering; Ch Engr-Chemical Engineering; EE-Electrical Engineering; ME-Mechanical Engineering; T-Textile; TC-Textile Chemistry; WD-Weaving and Designing; V Ag Ed-Vocational Agricultural Education; Ed-Education; I Ed-Industrial Education; TIE-Textile Industrial Education; S-Special (not classified). New students admitted in September, 1938, are indicated by a dagger (†).

| Name and Course               | Address            | Name and Course                 | Address         |
|-------------------------------|--------------------|---------------------------------|-----------------|
| Abbott, F. A. (1 T)†          | Greenville         | Armstrong, J. D. (1 E)†         | Spindale, N. C. |
| Abbott, W. W. (1 TC)†         | Seneca             | Armstrong, W. S. (1 T)†         | Fountain Inn    |
| Abee, R. B. (2 Ar)            | Hickory, N. C.     | Arnold, F. T. (4 Ent)           | Spartanburg     |
| Able, S. K. (1 V Ag Ed)†      | Saluda             | Arnold, H. H. (1 V Ag Ed)       | Woodruff        |
| Able, T. A. (3 CE)            | Abbeville          | Arrington, L. R. (3 D)          | Ninety Six      |
| Abrams, E. P. (4 CE)          | Newberry           | Asbill, L. C. (1 GS)†           | Ridge Spring    |
| Acker, H. L. (3 GS)           | Anderson           | Ashford, J. F. (2 ME)           | Georgetown      |
| Ackerman, M. W. (3 ME)        | Cottageville       | Askins, P. R. (1 E)†            | Hartsville      |
| Ackerman, W. M. (3 TC)        | St. George         | Atkinson, D. H. (1 E)†          | Turbeville      |
| Ackis, H. S. (2 T)            | Jacksonville, Fla. | Aull, C. M. (4 Ag Ec)           | Newberry        |
| Adams, C. A. (1 S)†           | Commerce, Ga.      | Austell, J. R. (2 I Ed)         | Greenville      |
| Adams, G. W. (2 GS)           | Batesburg          | Avent, H. E. (3 Ar)             | Bennettsville   |
| Adams, P. H. (3 I Ed)         | Gadsden            | Avinger, H. C. (4 T)            | Orangeburg      |
| Addy, F. E. (1 GS)†           | Saluda             | Awtreay, W. E. (2 EE)           | West Columbia   |
| Adickes, G. C. (1 GS)†        | York               | Babb, J. M. (2 Ag Engr)         | Gray Court      |
| Agnew, J. C. P. (2 Ag Engr)   | Starr              | Bachman, C. M. (1 E)†           | West Columbia   |
| Agnew, R. E. (3 ME)           | Donalds            | Bagnol, H. T. (3 GS)            | Sumter          |
| Aiken, D. E. (1 Ag Engr)†     | New Zion           | Bagwell, R. F. (1 T)†           | Glendale        |
| Albergoti, W. M. (1 E)†       | Columbia           | Bailes, L. C. (4 GS)            | Anderson        |
| Alderman, D. W. (1 I Ed)†     | Florence           | Bailey, C. H. (2 CE)            | Allendale       |
| Alexander, A. J. (1 I Ed)†    | Anderson           | Bailey, H. L. (1 Ag Engr)†      | Wellford        |
| Alexander, E. D. (1 V Ag Ed)† | Starr              | Bailey, J. R. (4 ME)            | Florence        |
| Alexander, H. F. (2 ME)       | Columbia           | Bailey, R. B. (1 T)†            | Lockhart        |
| Allen, H. S. (1 V Ag Ed)†     | Blythewood         | Bailey, W. M. (1 E)†            | Summerville     |
| Allen, J. H. (2 ME)           | Spartanburg        | Bainbridge, T. R. (4 C)         | Savannah, Ga.   |
| Allen, J. L. (2 T)†           | Pacolet Mills      | Baker, A. H. (2 TIE)            | Clover          |
| Alley, G. I. (1 E)†           | Columbia           | Baker, H. L. (1 E)†             | Charleston      |
| Allison, Eugene (2 T)†        | Forest City, N. C. | Baker, J. M. (3 V Ag Ed)        | Hemingway       |
| Allison, W. A. (1 E)†         | Chesnee            | Baker, W. E. (2 CE)             | Greenville      |
| Alman, M. H. (1 A)†           | Jonesville         | Baker, W. H. W. (1 T)†          | Chester         |
| Almeida, J. L. (3 I Ed)       | Charleston         | Baldwin, J. K. (2 CE)           | Lake City       |
| Alston, R. P. (1 A)†          | Rembert            | Baldwin, M. C. L. (3 TC)        | Rock Hill       |
| Altman, D. D. (1 A)†          | Clio               | Balfour, F. H. (2 GS)           | Orlando, Fla.   |
| Altman, J. R. (1 E)†          | Yemassee           | Ballard, E. J. (1 E)†           | Charleston      |
| Ambrose, L. R. (4 ME)         | Plantersville      | Ballard, H. G. (1 E)†           | Pelzer          |
| Anderson, B. W. (2 GS)        | Edgefield          | Ballard, V. A. (4 T)            | Arcadia         |
| Anderson, C. E. (3 T)         | Seneca             | Ballenger, C. D. (4 Hort)       | Greer           |
| Anderson, C. S. (1 E)†        | Sumter             | Ballenger, P. C. (3 V Ag Ed)    | Westminster     |
| Anderson, G. J. (2 GS)        | Williston          | Ballentine, C. F. (4 I Ed)      | Prosperity      |
| Anderson, H. N. (1 C)†        | Moultrieville      | Ballentine, G. W. (1 A)†        | Easley          |
| Anderson, J. F. (4 I Ed)      | Edgefield          | Ballentine, J. R. (1 T)†        | Greenwood       |
| Anderson, R. F. (4 Ag Ec)     | Ninety Six         | Ballentine, R. W. (2 V Ag Ed)   | Prosperity      |
| Anderson, R. M. (2 EE)        | Chester            | Ballister, R. A. (4 I Ed)       | Greenwood       |
| Anderson, W. D. (3 T)         | Gastonia, N. C.    | Barber, J. W. (1 E)†            | Columbia        |
| Anthony, S. H. (1 C)†         | Greenville         | Barksdale, T. L. (1 E)†         | North Augusta   |
| Appley, P. L. (1 Ar)          | Highlands, N. C.   | Barlow, John (1 E)†             | Glenolden, Pa.  |
| Arant, L. L. (1 T)†           | Ft. Motte          | Barmore, W. E. (1 A)†           | Donalds         |
| Arant, T. D. (2 GS)           | Ft. Motte          | Barnes, Frank Sanders (1 E)†    | Rock Hill       |
| Ardis, T. B. (4 V Ag Ed)      | Dalzell            | Barnes, Frank Stratford (1 Ar)† | Greenville      |
| Ariail, R. L. (3 Ag Ec)       | Willington         | Barnette, W. A. (1 TC)†         | Greenwood       |
| Armstrong, H. H. (1 E)†       | Savannah, Ga.      | Barnwell, B. S. (2 T)           | Abbeville       |



| Name and Course                | Address               | Name and Course                  | Address               |
|--------------------------------|-----------------------|----------------------------------|-----------------------|
| Barrineau, T. W. (4 V Ag Ed)   | Lake City             | Blakely, J. R. (4 V Ag Ed)       | Ora                   |
| Barron, J. I. (2 ME)           | York                  | Blakely, L. J. (4 V Ag Ed)       | Ora                   |
| Barton, J. H. (1 T)†           | Anderson              | Blakeney, R. H. (2 T)            | Lancaster             |
| Baskin, J. S. (4 Ag Ec)        | Bishopville           | Blalock, J. D. (1 T)†            | Enka, N. C.           |
| Baskin, R. R. (1 A)†           | Bishopville           | Blalock, T. J. (S)†              | Clemson               |
| Baskin, T. P. (3 ME)           | Anderson              | Blanchett, M. P. (2 T)           | Abbeville             |
| Bass, T. J. (1 E)†             | Latta                 | Blanton, O. H. (1 V Ag Ed)†      | Nichols               |
| Batchelor, P. R. (3 A)†        | Blacksburg            | Blaylock, C. S. (2 EE)           | Greenwood             |
| Bateman, F. F. (3 EE)          | Columbia              | Blease, E. S. (2 V Ag Ed)        | Saluda                |
| Bates, R. O. (2 CE)            | Moncks Corner         | Blessing, J. E. (2 A)            | Kingsport, Tenn.      |
| Baugh, V. E. (1 E)†            | McColl                | Blount, J. B. (1 C)†             | Savannah, Ga.         |
| Baxley, B. A. (1 V Ag Ed)†     | Early Branch          | Boatwright, Benjamin (1 A)†      | Johnston              |
| Baxley, J. B. (1 A)†           | Barnwell              | Boatwright, Harry (3 GS)         | Seneca                |
| Baxley, J. R. (1 A)†           | Mullins               | Bobo, F. G. (4 GS)               | Greenville            |
| Beach, H. L. (4 V Ag Ed)       | Walterboro            | Bodie, K. J. (2 V Ag Ed)         | Ward                  |
| Beacham, M. D. (1 E)†          | Newberry              | Boesch, J. C. (S)                | Clemson               |
| Beasley, W. A. (4 V Ag Ed)     | Norway                | Boggs, A. J. (1 C)†              | Pickens               |
| Beaty, A. R. (1 TC)†           | Seneca                | Boland, T. S. (2 T)              | Blackville            |
| Beaty, R. W. (1 GS)†           | Sumter                | Boliver, W. C. (3 TC)            | Orangeburg            |
| Beaudrot, C. R. (2 ME)         | Greenwood             | Bolt, J. E. (1 T)†               | Calhoun Falls         |
| Beaudrot, J. L. (2 ME)         | Greenwood             | Bolt, W. H. (2 ME)               | Seneca                |
| Beaver, A. T. (1 Ed)†          | Georgetown            | Bonds, W. J. (1 S)†              | Gaffney               |
| Beckett, J. T. (2 EE)          | Johns Island          | Bone, M. B. (3 I Ed)             | Clemson               |
| Beckett, T. A. (2 A)           | Johns Island          | Boney, B. W. (1 V Ag Ed)†        | Blythewood            |
| Becknell, C. A. (1 T)†         | Thomaston, Ga.        | Boney, F. N. (1 V Ag Ed)†        | Blythewood            |
| Behling, L. F. (1 A)†          | St. George            | Bonnette, G. H. (2 A)            | Ebenezer              |
| Belk, G. H. (1 A)†             | Trenton               | Bookhart, H. U. (4 V Ag Ed)      | Orangeburg            |
| Bell, F. L. (S)                | Clemson               | Booser, Harold W. (4 T)          | Clemson               |
| Bell, H. F. (1 Ag Engr)†       | Wampee                | Booser, Hugh W. (1 V Ag Ed)      | Leesville             |
| Bell, J. J. (1 E)†             | Barnwell              | Boselli, T. J. (4 ME)            | Spartanburg           |
| Bell, R. N. (1 A)              | Harleyville           | Boswell, R. C. (2 T)             | Travelers Rest        |
| Bell, T. E. (4 AH)             | Lydia                 | Botts, E. O. (4 EE)              | Abbeville             |
| Bell, W. M. (2 V Ag Ed)        | Hartsville            | Botts, J. A. (1 Ch Engr)†        | Abbeville             |
| Bellamy, G. G. (2 V Ag Ed)     | Loris                 | Bouknight, C. L. (1 E)†          | Columbia              |
| Belue, F. W. (1 GS)†           | Gaffney               | Boulware, J. E. (1 A)†           | Newberry              |
| Belue, H. P. (2 C)             | Charlotte, N. C.      | Bouton, W. I. (3 GS)             | Ware Shoals           |
| Benfield, J. K. (2 TC)         | York                  | Bowen, D. R. (1 Ag Engr)†        | Oakway                |
| Benjamin, G. F. (2 ME)         | Augusta, Ga.          | Bowers, D. G. (1 E)†             | Columbia              |
| Benjamin, Irving (1 GS)†       | Bowman                | Bowers, G. F. (2 GS)             | Luray                 |
| Bennett, E. F. (2 V Ag Ed)     | Vance                 | Boy, C. T. (1 T)†                | Fort Mill             |
| Bennett, L. E. (1 V Ag Ed)     | Springfield           | Boyce, H. K. (1 Ch Engr)†        | Cross Hill            |
| Bennett, Walter (2 V Ag Ed)    | Orangeburg            | Boyd, J. A. B. (1 A)†            | Blackstock            |
| Benson, F. D. (4 T)            | Fairforest            | Boyd, R. R. (1 GS)†              | DeLand, Fla.          |
| Benton, D. A. (2 A)            | Timmons ville         | Boyd, S. J. (4 C)                | Laurens               |
| Berry, H. G. (2 T)†            | Greenville            | Boyle, W. B. (4 ME)              | Sumter                |
| Berry, H. S. (2 A)             | Greer                 | Boylston, W. L. (2 Ag Engr)      | Charleston            |
| Berry, M. M. (3 GS)            | Atlanta, Ga.          | Boys, R. W. (4 T)                | Tuxedo, N. C.         |
| Berry, R. J. (2 Ag Engr)       | Smoaks                | Bozard, L. S. (3 Agr)            | Cameron               |
| Berry, R. S. (1 T)†            | York                  | Brace, J. H. (4 Ch Engr)         | Columbia              |
| Bessent, C. F. (2 ME)          | Little River          | Brackett, M. M. (1 GS)†          | Hendersonville, N. C. |
| Bessent, T. A. (2 ME)          | Little River          | Brackett, W. E. (4 Ar)           | Hendersonville, N. C. |
| Bethea, C. J. (2 Ag Engr)      | McColl                | Bradbury, D. W. (3 ME)           | Seneca                |
| Bethea, T. C. (2 Ag Engr)      | Dillon                | Bradford, Henry (2 T)            | Berryton, Ga.         |
| Bethea, W. E. (2 ME)           | Latta                 | Bradford, S. R. (2 EE)           | Greenwood             |
| Bethea, W. H. (3 EE)           | Marion                | Bradley, C. F. (1 T)             | Charleston            |
| Betsill, W. L. (1 A)†          | Laurens               | Bradley, W. F. (2 T)             | Charleston            |
| Bettis, J. R. (4 ME)           | Greenville            | Bradshaw, R. B. (1 A)†           | Cartersville, Ga.     |
| Betts, J. A. (1 TC)†           | Chester               | Brady, H. G. (3 T)               | Columbia              |
| Bickley, C. E. (2 T)           | Pendleton             | Brady, W. P. (2 T)               | Columbia              |
| Bigger, S. P. (2 A)            | York                  | Braithwaite, Richard (2 Ch Engr) | Orangeburg            |
| Biggerstaff, S. C. (1 V Ag Ed) | Seneca                |                                  |                       |
| Bird, C. L. (1 T)†             | Asheville, N. C.      |                                  |                       |
| Bird, E. R. (3 T)              | West Asheville, N. C. |                                  |                       |
| Bird, J. P. (1 Ar)†            | Greenville            |                                  |                       |
| Bischoff, R. J. (2 C)          | Summerville           |                                  |                       |
| Bisset, D. A. (1 Ch Engr)†     | Savannah, Ga.         |                                  |                       |
| Black, C. V. (4 V Ag Ed)       | Ward                  |                                  |                       |
| Black, T. H. (2 Ar)            | Columbia              |                                  |                       |
| Blackmon, C. R. (2 ME)         | Timmons ville         |                                  |                       |
| Blackmon, R. W. (2 CE)         | Timmons ville         |                                  |                       |
| Blackwell, B. E. (1 V Ag Ed)†  | Landrum               |                                  |                       |
| Blackwell, G. E. (4 Hort)      | Inman                 |                                  |                       |
| Blair, C. H. (3 T)             | Clemson               |                                  |                       |
| Blair, H. C. (2 Ar)            | Sevierville, Tenn.    |                                  |                       |
| Blake, I. C. (3 GS)            | Calhoun Falls         |                                  |                       |
|                                |                       | Brannon, T. L. (2 V Ag Ed)       | Cassatt               |
|                                |                       | Brasington, B. A. (1 E)†         | Darlington            |
|                                |                       | Bratton, R. M. (4 V Ag Ed)       | Gaffney               |
|                                |                       | Brazell, E. D. (2 V Ag Ed)       | Blaney                |
|                                |                       | Breazeale, T. C. (1 A)†          | Belton                |
|                                |                       | Breazeale, W. C. (S)             | Clemson               |
|                                |                       | Breland, W. D. D. (2 A)          | Ruffin                |
|                                |                       | Brewer, Harold (3 V Ag Ed)       | Lanes                 |
|                                |                       | Brice, A. M. (3 ME)              | Clemson               |
|                                |                       | Brice, T. W. (3 T)               | Woodward              |
|                                |                       | Bridge, R. W. (+ V Ag Ed)        | Round O               |
|                                |                       | Bridges, M. L. (3 V Ag Ed)       | Blacksburg            |
|                                |                       | Bringe, R. L. (1 E)              | Parris Island         |

| Name and Course              | Address           | Name and Course              | Address               |
|------------------------------|-------------------|------------------------------|-----------------------|
| Britton, J. D. (1 GS)†       | Kingstree         | Cannon, O. B. (1 C)†         | Newberry              |
| Brockman, W. D. (2 GS)       | Greer             | Cantey, B. O. (4 GS)         | Sumter                |
| Brodie, G. A. (4 Ag Ec)      | Wagener           | Cantrell, M. C. (2 V Ag Ed)  | Spartanburg           |
| Brooks, A. L. (2 Ch Engr)    | Timmons ville     | Cantrell, W. R. (1 E)†       | Spartanburg           |
| Brooks, O. P. (1 E)†         | North Charleston  | Carder, W. H. (2 TC)         | Inman                 |
| Brooks, W. C. (1 T)†         | Prosperity        | Cargill, T. C. (1 E)†        | Columbia              |
| Broun, Donald (1 E)†         | Wilmington, N. C. | Carlisle, W. A. (4 Ar)       | Spartanburg           |
| Brown, B. V. (1 Ag Engr)†    | Gaffney           | Carlson, Paavo (4 Ar)        | Brooklyn, N. Y.       |
| Brown, C. A. (1 A)†          | Starr             | Carmichael, A. C. (1 A)      | Scranton              |
| Brown, E. B. (1 T)†          | Philadelphia, Pa. | Carnes, J. E. (1 GS)         | Lancaster             |
| Brown, E. R. (2 V Ag Ed)     | Bishopville       | Carns, A. L. (1 A)†          | Columbia              |
| Brown, H. S. (2 A)           | Kingstree         | Carpenter, C. T. (1 TC)†     | Kings Mountain, N. C. |
| Brown, J. C. (1 GS)†         | Sumter            | Carson, C. R. (3 C)          | Anderson              |
| Brown, J. L. (1 T)†          | Conway            | Carson, R. G. (4 WD)         | Orangeburg            |
| Brown, J. W. (1 A)†          | Starr             | Carson, W. H. (1 T)†         | Orangeburg            |
| Brown, K. M. (1 V Ag Ed)†    | Hemingway         | Cartee, J. K. (1 V Ag Ed)†   | Liberty               |
| Brown, R. F. (3 GS)          | Westminster       | Carter, C. A. (1 E)†         | Charleston            |
| Brown, R. H. (2 GS)          | Charleston        | Carter, C. L. (2 V Ag Ed)    | Salters               |
| Browne, C. H. (1 Ch Engr)†   | Florence          | Carter, D. S. (1 C)†         | Ridgeland             |
| Browning, W. B. (1 E)†       | Ridgeville        | Carter, J. D. (2 V Ag Ed)    | Leo                   |
| Broyles, J. N. (2 A)         | Townville         | Carter, J. R. (3 V Ag Ed)†   | Fort Lawn             |
| Brunson, J. F. (1 Ed)        | Brunson           | Carter, S. O. (1 C)†         | Maywood, Ill.         |
| Brunson, W. L. (1 V Ag Ed)†  | Brunson           | Casale, R. S. (2 Ch Engr)    | New York, N. Y.       |
| Bryan, C. B. (3 CE)          | Johns Island      | Cash, F. G. (1 T)†           | Tucapau               |
| Bryan, D. C. (1 Ch Engr)†    | Swansea           | Cason, L. L. (3 C)           | Williamston           |
| Bryan, J. F. (1 E)†          | Fairfax           | Cason, W. S. (4 CE)          | Garnett               |
| Bryan, W. C. (3 AH)          | Fairfax           | Castles, J. F. (2 EE)        | Winnboro              |
| Bryant, C. K. (3 EE)         | Gastonia, N. C.   | Caston, B. A. (1 V Ag Ed)†   | Pageland              |
| Bryant, F. D. (2 Ch Engr)    | Marion            | Cathcart, J. W. (4 GS)       | Winnboro              |
| Bryant, G. C. (2 Ag Engr)    | Dovesville        | Cathcart, T. M. (3 GS)       | Bishopville           |
| Bryant, Loyell (2 V Ag Ed)   | Carthage, Tenn.   | Caughman, R. B. (2 ME)       | Columbia              |
| Bryant, R. H. (3 Ag Engr)    | Florence          | Caughman, R. H. (3 AH)       | Leesville             |
| Bryce, F. J. (4 GS)          | Florence          | Cauthen, R. H. (3 T)         | Columbia              |
| Buchanan, A. M. (3 CE)       | McColl            | Cecil, D. W. (1 Ar)†         | Spartanburg           |
| Buchanan, H. L. (2 T)        | Anderson          | Champion, T. M. (3 T)        | Union                 |
| Buff, J. N. (1 GS)†          | Elko, Ga.         | Chandler, A. W. (1 E)†       | Anderson              |
| Buford, W. B. (1 E)†         | Clinton           | Chandler, J. F. (4 CE)       | Seneca                |
| Buist, Billie (1 E)†         | Blackville        | Chandler, W. O. (3 CE)       | Piedmont              |
| Bull, B. R. (2 V Ag Ed)      | Cameron           | Chaplin, J. F. (1 Ag Engr)†  | Lamar                 |
| Bull, L. H. (3 V Ag Ed)      | Cameron           | Chapman, A. D. (4 V Ag Ed)   | Fair Play             |
| Bull, R. L. (1 V Ag Ed)†     | Parler            | Chapman, A. H. (4 Ar)        | Spartanburg           |
| Bullington, W. A. (2 T)      | Spartanburg       | Chapman, R. G. (2 A)         | Greenville            |
| Burdette, E. K. (3 EE)       | Charleston        | Charles, Jack (2 WD)         | Piedmont              |
| Burgess, A. F. (2 Ag Engr)   | Belton            | Chastain, R. C. (1 V Ag Ed)† | Pickens               |
| Burgess, E. C. (2 GS)        | Kingstree         | Chastain, W. B. (2 V Ag Ed)  | Pickens               |
| Burgess, G. H. (1 E)†        | Fountain Inn      | Chastain, W. H. (1 V Ag Ed)† | Taylors               |
| Burley, B. B. (2 GS)         | Clemson           | Cheatham, F. C. (2 T)        | Greenwood             |
| Burnette, H. W. (1 E)†       | Belton            | Cheatham, R. L. (1 T)†       | Abbeville             |
| Burney, J. H. (2 C)          | Orangeburg        | Cheezem, W. L. (1 GS)†       | Andrews               |
| Burns, P. J. (3 T)           | Greenville        | Chitty, H. M. (2 A)          | Gainesville, Fla.     |
| Burress, D. E. (4 EE)        | Pendleton         | Chovan, P. B. (4 Ed)         | Bethlehem, Pa.        |
| Burris, T. M. (3 I Ed)       | Anderson          | Christopher, J. D. (2 TC)    | Greenville            |
| Burton, H. M. (1 T)†         | Anderson          | Chuharski, Joseph (2 I Ed)   | Pemberwick, Conn.     |
| Burton, R. H. (4 T)          | Anderson          | Citron, L. A. (4 EE)         | Columbia              |
| Burton, W. E. (1 V Ag Ed)†   | Ninety Six        | Clark, J. R. (1 A)†          | Columbia              |
| Bussey, W. W. (2 TC)         | Greenville        | Clark, W. H. (1 GS)†         | Ocala, Fla.           |
| Butler, E. C. (2 A)          | Yonges Island     | Clark, W. M. (1 E)†          | Johnston              |
| Butler, G. W. (1 V Ag Ed)†   | Travelers Rest    | Clawson, C. H. (2 Ar)        | Rock Hill             |
| Byars, H. H. (1 I Ed)†       | Liberty           | Clay, N. P. (1 TC)†          | Greenville            |
| Byrd, R. D. (1 I Ed)†        | Prosperity        | Clegg, C. R. (S)             | Liberty               |
| Byrd, W. C. (2 CE)           | Clinton           | Cleveland, E. P. (3 T)       | Marietta              |
| Caddelle, C. E. (1 E)†       | Hartsville        | Cline, W. E. (2 ME)          | Newton, N. C.         |
| Cain, J. N. (1 Ag Engr)†     | Sumter            | Clowney, J. Y. (1 Ch Engr)†  | Columbia              |
| Cain, W. T. (3 Hort)         | Eastover          | Coakley, F. H. (2 A)         | Washington, D. C.     |
| Caldwell, T. H. (2 V Ag Ed)  | Ruffin            | Coakley, G. E. (2 A)         | Washington, D. C.     |
| Calhoun, F. H. H. (4 CE)     | Clemson           | Cobb, C. D. (3 T)            | Belton                |
| Calhoun, R. A. (2 CE)        | Ringgold, Ga.     | Cobb, M. D. (S)†             | Westminster           |
| Callaway, J. M. (1 E)†       | Myrtle Beach      | Cochran, R. P. (3 GS)        | Charleston            |
| Cameron, A. N. (2 CE)        | Anderson          | Cofer, W. O. (4 V Ag Ed)     | Wagener               |
| Campbell, C. M. (1 Ag Engr)† | Sheldon           | Coggins, A. E. (2 V Ag Ed)   | Inman                 |
| Campbell, F. M. (1 S)†       | Pelzer            | Cogswell, G. W. (1 E)†       | Charleston            |
| Campbell, L. T. (1 A)†       | Anderson          | Cohen, Edward (3 TC)         | Clemson               |
| Campbell, W. F. (3 I Ed)     | Anderson          | Coker, G. R. (4 GS)          | Turbeville            |
| Cannon, C. D. (2 ME)         | Hemingway         |                              |                       |
| Cannon, J. E. (2 TC)         | Hartsville        |                              |                       |

| Name and Course               | Address               | Name and Course                 | Address             |
|-------------------------------|-----------------------|---------------------------------|---------------------|
| Coker, L. W. (1 E)†           | Turbeville            | Crosby, D. D. (4 CE)            | Chester             |
| Coker, R. C. (1 V Ag Ed)†     | Laurens               | Crosby, R. A. (3 EE)            | Ruffin              |
| Coker, T. H. (2 GS)           | Hartsville            | Crosland, Daniel (1 A)†         | Aiken               |
| Coleman, A. B. (1 GS)†        | Pamplico              | Crouch, H. J. (2 I Ed)          | Elko                |
| Coleman, A. J. (4 GS)         | Aiken                 | Crouch, H. L. (1 V Ag Ed)†      | Saluda              |
| Coleman, C. L. (3 Ar)         | Wilmington, Del.      | Crouch, H. M. (4 Agr)           | Saluda              |
| Coleman, D. B. (2 V Ag Ed)    | Saluda                | Crow, Smith (1 T)†              | Drayton Mills       |
| Coleman, H. A. (1 E)†         | Mt. Pleasant          | Crowder, M. M. (1 Ag Engr)†     | Strother            |
| Coleman, J. R. (1 E)†         | Pamplico              | Crowell, G. L. (1 E)†           | Chappells           |
| Coleman, R. W. (4 GS)         | Hyman                 | Croxson, E. F. (3 CE)           | Charlotte, N. C.    |
| Coleman, W. D. (4 AH)         | Bamberg               | Crumbley, J. C. (3 Ch Engr)     | Charleston          |
| Coleman, W. J. (3 GS)         | Aiken                 | Culbreth, H. R. (1 V Ag Ed)†    | Inman               |
| Coleman, W. S. (4 V Ag Ed)    | Anderson              | Culler, J. C. (2 A)             | Wolfston            |
| Collins, W. A. (1 E)†         | Greenwood             | Culton, R. S. (2 EE)            | Corazal, Canal Zone |
| Collins, W. D. (3 I Ed)       | Inman                 | Culvern, F. E. (4 T)            | Kershaw             |
| Coltrane, R. A. (1 E)†        | Columbia              | Cunningham, C. D. (2 I Ed)      | Liberty Hill        |
| Colvin, J. S. (1 E)†          | Chester               | Cushman, Geddings (1 E)†        | Aiken               |
| Colvin, R. E. (2 C)           | Darlington            | Dabbs, C. F. (1 E)†             | Sumter              |
| Commander, G. C. (3 CE)       | Florence              | Dangerfield, C. M. (1 V Ag Ed)† | Oakley              |
| Compton, E. S. (1 I Ed)†      | Greenwood             | Dantzler, L. A. (1 V Ag Ed)†    | Eutawville          |
| Compton, G. W. (2 I Ed)       | Union                 | Dantzler, P. H. (3 V Ag Ed)     | Parler              |
| Condon, W. J. (1 E)†          | Charleston            | Darby, W. M. (2 CE)             | Beaufort            |
| Cone, G. E. (1 V Ag Ed)†      | Brunson               | Darrin, S. P. (1 T)             | Spartanburg         |
| Connell, N. G. (2 V Ag Ed)    | Camden                | Darwin, D. P. (3 ME)            | Gaffney             |
| Cook, H. L. (3 EE)            | Owings                | Davant, Charles (2 GS)†         | Columbia            |
| Cook, J. C. (4 ME)            | Sumter                | Davant, F. D. (1 GS)†           | Columbia            |
| Cook, O. K. (3 V Ag Ed)       | Prosperity            | Davenport, J. D. (1 GS)†        | Greenville          |
| Cook, R. E. (1 E)†            | Owings                | Davenport, W. W. (1 GS)†        | Greenville          |
| Cooler, C. L. (1 V Ag Ed)†    | Ridgeland             | Davis, C. S. (1 GS)†            | Orlando, Fla.       |
| Cooler, E. W. (2 A)           | Sheldon               | Davis, H. F. (1 A)†             | Centenary           |
| Cooley, R. L. (3 V Ag Ed)     | Chesnee               | Davis, J. W. (S)                | Charleston          |
| Cooner, A. W. (2 Ch Engr)†    | Batesburg             | Davis, N. R. (4 Ag Ec)          | Norway              |
| Cooper, H. M. (4 Ch Engr)     | Charleston            | Davis, S. E. (2 Ch Engr)        | Brunswick, Ga.      |
| Cooper, R. A. (1 E)†          | San Juan, P. R.       | Davis, T. F. (3 GS)             | Orlando, Fla.       |
| Cooper, R. L. (1 A)†          | Simpsonville          | Davis, W. O. (1 A)              | Centenary           |
| Cope, G. B. (1 E)†            | Cope                  | Day, R. B. (1 Ch Engr)†         | Atlanta, Ga.        |
| Copeland, H. C. (2 T)         | Newport News, Va.     | Dean, J. F. (1 E)†              | Sumter              |
| Copeland, H. J. (2 A)         | Newport News, Va.     | Deitz, J. F. (2 GS)             | Hickory, N. C.      |
| Copeland, J. F. (4 GS)        | Timmons ville         | DeLany, A. H. (1 E)†            | Greenville          |
| Copeland, Neil (2 EE)         | Timmons ville         | Dellastatious, A. E. (2 ME)     | Starr               |
| Copeland, O. L. (4 Agr)       | Ehrhardt              | Dellastatious, F. A. (1 T)†     | Washington, D. C.   |
| Copley, W. M. (3 EE)          | North Matewan, W. Va. | Dellinger, W. F. (2 EE)         | Spartanburg         |
| Corbett, L. W. (2 GS)         | Bishopville           | DeLoach, A. J. (4 V Ag Ed)      | Scotia              |
| Corley, D. K. (1 A)†          | Lexington             | DeLoach, L. A. (4 I Ed)         | Savannah, Ga.       |
| Corley, E. J. (2 A)†          | Lexington             | DeMai, Nicholas (3 GS)          | Rocky Mount, N. C.  |
| Corn, L. E. (3 EE)            | Woodruff              | Demosthenes, H. J. (2 Ar)       | Parris Island       |
| Correll, H. M. (2 Ch Engr)    | York                  | Denny, E. R. (2 ME)             | Columbia            |
| Cosgrove, H. H. (4 WD)        | North Augusta         | Denny, H. S. (2 I Ed)           | Bishopville         |
| Cotthran, P. C. (2 CE)†       | Greenville            | Dent, H. N. (2 Ag Engr)         | St. Matthews        |
| Cottingham, J. E. (2 Ag Engr) | Dillon                | Derrick, W. G. (2 V Ag Ed)      | Johnston            |
| Cottingham, J. M. (1 A)†      | Dillon                | DesPortes, J. A. (2 T)          | Fort Mill           |
| Couch, J. H. (2 T)            | Easley                | Dewey, C. A. (4 ME)             | Asheville, N. C.    |
| Couch, K. O. (1 V Ag Ed)†     | Easley                | Dickerson, G. L. (2 T)          | Spartanburg         |
| Covington, H. M. (4 Hort)     | Bennettsville         | Dickert, Y. J. (S)†             | Newberry            |
| Covington, J. C. (4 GS)       | Columbia              | Dicks, N. R. (2 T)              | Barnwell            |
| Coward, W. A. (2 A)           | Aiken                 | Dillard, W. T. (3 Ed)†          | Decatur, Ga.        |
| Cox, A. Z. (2 TC)             | Hardeeville           | Dixon, J. E. (4 GS)             | Columbia            |
| Cox, H. C. (2 ME)             | Johnsonville          | Dixon, J. H. (1 GS)†            | Anderson            |
| Cox, J. E. (2 CE)             | Conway                | Dixon, J. S. (3 Ag Engr)        | Bishopville         |
| Cox, J. L. (1 T)†             | Belton                | Dobbins, F. G. (2 A)            | Townville           |
| Cox, J. M. (1 I Ed)†          | Greenville            | Dobbins, R. B. (1 T)†           | Rock Hill           |
| Cox, W. F. (1 S)†             | Tomnolen, Miss.       | Dobson, C. B. (2 A)             | Greer               |
| Cox, W. T. (4 GS)             | Belton                | Dobson, C. D. (3 ME)            | Greenville          |
| Coyle, B. M. (2 CE)           | Columbia              | Dobson, R. M. (4 Hort)          | Greer               |
| Cranford, M. H. (2 T)         | Chester               | Donly, W. H. (1 GS)†            | Columbia            |
| Cranford, W. O. (1 T)†        | Kings Mountain, N. C. | Donovan, W. H. (1 E)†           | Wadley, Ga.         |
| Craven, F. M. (2 GS)          | Florence              | Dorn, K. J. (1 GS)†             | Florence            |
| Crawford, K. L. (1 E)†        | Calhoun               | Dorn, O. G. (1 Ag Engr)†        | Sumter              |
| Crawford, N. D. (4 GS)        | Clemson               | Douglas, S. Z. (2 CE)           | DeLand, Fla.        |
| Crayton, T. W. (2 GS)         | Anderson              | Doux, J. T. (3 TC)              | Charlotte, N. C.    |
| Creel, L. E. (3 V Ag Ed)†     | Poston                | Dozier, C. L. (1 C)†            | Orlando, Fla.       |
| Crews, M. S. (3 TC)†          | Laurens               | Dreher, J. B. (3 V Ag Ed)       | Columbia            |
| Crews, S. F. (1 I Ed)†        | Hampton               | Dreisbach, L. D. (2 EE)         | Columbia            |
| Crocker, T. J. (2 Ch Engr)    | Charleston            | Drennan, R. F. (1 TC)†          | Rock Hill           |
| Crook, Martin (4 GS)          | Spartanburg           | Drew, P. N. (4 EE)              | Columbia            |



| Name and Course                    | Address           | Name and Course                   | Address               |
|------------------------------------|-------------------|-----------------------------------|-----------------------|
| Driver, A. H. (2 Ch Engr)-----     | Aiken             | Farnum, C. O. (3 ME)-----         | Orangeburg            |
| DuBose, E. E. (2 T)-----           | Oswego            | Faulkner, T. C. (1 E)†-----       | McCormick             |
| DuBose, Frank (1 Ag Engr)†-----    | Camden            | Faulkner, W. M. (1 A)†-----       | Kings Creek           |
| Ducworth, E. T. (1 A)†-----        | Anderson          | Feinstein, Harry (4 EE)-----      | Clemson               |
| Ducworth, W. W. (1 A)†-----        | Anderson          | Fellers, H. H. (1 A)†-----        | Prosperity            |
| Dudley, A. C. (2 V Ag Ed)-----     | Mullins           | Fellers, L. Q. (3 T)-----         | Columbia              |
| Duke, A. A. (1 V Ag Ed)†-----      | Walhalla          | Fellers, R. C. (3 T)-----         | Prosperity            |
| Dukes, J. L. (2 CE)-----           | St. George        | Fender, W. C. (2 GS)-----         | Branchville           |
| Dukes, O. S. (3 Ar)-----           | Aiken             | Fendley, F. J. (1 V Ag Ed)†-----  | Salem                 |
| Dukes, R. C. (2 EE)-----           | Orangeburg        | Fennell, R. C. (1 V Ag Ed)†-----  | Loris                 |
| Duncan, A. A. (1 C)†-----          | Bath              | Fenstermacher, E. R. (3 D)-----   | Greenville, Tenn.     |
| Duncan, D. D. (2 T)-----           | Blacksburg        | Ferguson, B. E. (1 Ch Engr)†----- | Abbeville             |
| Dunham, C. F. (2 CE)-----          | Anderson          | Ferguson, H. E. (3 GS)-----       | McCormick             |
| Dunham, E. W. (2 T)-----           | Durham, N. C.     | Ferguson, J. G. (1 Ch Engr)†----- | Winnsboro             |
| Dunlap, F. A. (4 GS)-----          | Rock Hill         | Ferguson, J. H. (3 Ent)-----      | Toccoa, Ga.           |
| Dunlap, G. M. (2 T)-----           | Tucapau           | Ferguson, T. D. (3 T)-----        | Abbeville             |
| Dunn, A. B. (2 Ch Engr)-----       | Bethlehem, Pa.    | Ferree, R. J. (4 Hort)-----       | Campobello            |
| Dunn, L. E. (3 V Ag Ed)-----       | Pelzer            | Ferrier, R. C. (1 C)†-----        | Clemson               |
| DuPre, F. A. (1 E)†-----           | Abbeville         | Ferris, L. R. (2 V Ag Ed)-----    | Orangeburg            |
| Durant, H. S. (2 ME)-----          | Savannah, Ga.     | Ficklin, M. T. (2 T)-----         | Greenwood             |
| Durban, F. W. (4 GS)-----          | Aiken             | Fickling, R. B. (4 Agr)-----      | Blackville            |
| Dusenbury, J. D. (1 A)-----        | Florence          | Fitch, J. P. (1 V Ag Ed)†-----    | Lake City             |
| Duvall, J. E. (3 ME)-----          | Bennettsville     | Flathmann, E. R. (3 EE)-----      | Charleston            |
| Eaddy, C. M. (2 V Ag Ed)-----      | Hemingway         | Fleetwood, H. G. (3 T)-----       | Clemson               |
| Eaddy, L. L. (2 V Ag Ed)-----      | Hemingway         | Fleming, F. M. (2 A)-----         | Langford              |
| Eadon, J. R. (3 T)-----            | Manning           | Fletcher, B. A. (2 WD)†-----      | Rock Hill             |
| Earle, James B. (2 CE)-----        | Charlotte, N. C.  | Fletcher, G. L. (2 A)-----        | McColl                |
| Earle, Joe B. (3 V Ag Ed)-----     | Central           | Fletcher, Nicholas (2 A)-----     | McColl                |
| Early, W. F. (2 Ar)-----           | Florence          | Floyd, Carl (1 Ch Engr)†-----     | Greenville            |
| Edens, M. B. (1 GS)†-----          | Pickens           | Floyd, E. E. (2 CE)-----          | Lake City             |
| Edmonds, J. L. (2 T)-----          | Orangeburg        | Floyd, G. W. (2 A)-----           | Conway                |
| Edwards, C. R. (1 GS)†-----        | Varnville         | Floyd, J. H. (1 V Ag Ed)†-----    | Olanta                |
| Edwards, D. T. (1 A)†-----         | Latta             | Floyd, J. R. (1 S)†-----          | Newberry              |
| Edwards, E. G. (1 GS)†-----        | Columbia          | Floyd, L. O. (1 E)†-----          | Scranton              |
| Edwards, G. T. (2 EE)-----         | Rowesville        | Fogle, H. L. (2 TC)-----          | Orangeburg            |
| Edwards, G. W. (1 E)†-----         | Gresham           | Fomby, H. C. (1 A)†-----          | Orangeburg            |
| Edwards, J. A. (2 T)-----          | Fountain Inn      | Ford, P. G. (4 CE)-----           | Clover                |
| Edwards, J. C. (1 T)†-----         | Seneca            | Ford, Z. T. (2 A)-----            | Nichols               |
| Edwards, J. L. (2 ME)-----         | Florence          | Forester, R. C. (3 T)-----        | Sumter                |
| Ehrhardt, J. S. (3 GS)-----        | Charleston        | Forrester, H. S. (3 Ar)-----      | Greenville            |
| Eidson, W. L. (3 AH)-----          | Ward              | Forrester, L. J. (1 E)†-----      | Greenville            |
| Elledge, L. D. (1 V Ag Ed)†-----   | Ware Shoals       | Forsythe, R. G. (3 Ch Engr)-----  | Greenville            |
| Elliott, R. H. (1 E)†-----         | Summerton         |                                   | Hendersonville, N. C. |
| Ellis, R. H. (1 E)†-----           | Little River      | Fortunato, F. J. (1 T)†-----      | Bethlehem, Pa.        |
| Ellis, W. N. (2 GS)-----           | Greenwood         | Fortner, H. B. (2 T)-----         | Greenville            |
| Ellison, C. E. (1 E)-----          | Greer             | Foster, H. E. (4 T)-----          | Pendleton             |
| Ellison, T. W. (3 T)-----          | Columbia          | Foster, I. J. (4 D)-----          | Chesnee               |
| Elmore, F. B. (3 Ch Engr)-----     | Hardeeville       | Foster, J. B. (2 Ar)-----         | Union                 |
| Elmore, H. H. (2 V Ag Ed)-----     | Mooresboro, N. C. | Foster, J. W. P. (1 GS)-----      | Summerville           |
| Elphick, C. C. (2 Ch Engr)-----    | Greenville        | Foster, S. V. (1 V Ag Ed)†-----   | Gaffney               |
| Embodry, C. F. (2 TC)-----         | Summit Hill, Pa.  | Foster, S. W. (1 T)†-----         | Fort Mill             |
| Embree, F. P. (1 E)†-----          | Greenville        | Foster, W. C. (1 I Ed)†-----      | Spartanburg           |
| Epps, D. E. (1 V Ag Ed)-----       | Latta             | Foster, W. J. (1 E)†-----         | Spartanburg           |
| Epps, J. C. (1 A)†-----            | Kingstree         | Foster, W. T. (4 D)-----          | Chesnee               |
| Epps, J. W. (2 Ar)-----            | Kingstree         | Foster, W. W. (3 T)-----          | Greenville            |
| Epting, C. E. (1 Ar)†-----         | Greenville        | Fowler, F. K. (1 A)†-----         | Kelton                |
| Epting, S. W. (3 V Ag Ed)-----     | Newberry          | Fowler, J. D. (1 A)†-----         | Forest City, N. C.    |
| Erwin, P. N. (2 Ar)-----           | Albany, Ga.       | Fox, F. M. (1 T)†-----            | Batesburg             |
| Es skew, W. T. (2 T)-----          | Anderson          | Frank, Morton (2 WD)-----         | Philadelphia, Pa.     |
| Eubanks, L. C. (1 Ag Engr)†-----   | Aiken             | Franks, C. H. (1 GS)†-----        | Laurens               |
| Eudy, J. B. (2 S)†-----            | Oakboro, N. C.    | Frazier, J. B. (4 T & WD)-----    | Blair                 |
| Evans, A. M. (4 T)-----            | Abbeville         | Frazier, J. R. (3 CE)-----        | Blair                 |
| Evans, C. E. (1 I Ed)†-----        | Orangeburg        | Frazier, W. H. (4 EE)-----        | Dothan, Ala.          |
| Evans, J. Hayward (2 V Ag Ed)----- | Six Mile          | Free, B. D. (1 I Ed)†-----        | Ninety Six            |
| Evans, L. N. (3 I Ed)-----         | Six Mile          | Freeman, E. A. (2 Ch Engr)-----   | Anderson              |
| Evans, L. S. (1 E)†-----           | Cheraw            | Freeman, P. N. (2 ME)-----        | Clemson               |
| Eve, Pinckney (2 A)-----           | Burton            | Fritts, G. H. (1 V Ag Ed)†-----   | Lenoir City, Tenn.    |
| Ewart, J. A. (2 E)†-----           | Blackstock        | Frowein, J. N. (1 A)†-----        | Clinton               |
| Exum, C. P. (1 GS)†-----           | Sumter            | Fulmer, H. P. (2 A)-----          | Chapin                |
| Fairry, P. W. (2 GS)-----          | St. Matthews      | Fulmer, R. B. (3 T)-----          | Leesville             |
| Falls, M. E. (3 Ar)-----           | Asheville, N. C.  | Fulmer, T. D. (4 TC)-----         | Saluda                |
| Fant, J. R. (2 T)†-----            | Lockhart          | Furman, E. P. (1 GS)†-----        | Allendale             |
| Farmer, C. H. (1 GS)†-----         | Allendale         | Furtick, C. W. (1 GS)†-----       | Springfield           |
| Farmer, J. G. (3 ME)-----          | Anderson          | Furtick, O. K. (3 V Ag Ed)-----   | Springfield           |
| Farmer, R. S. (2 EE)-----          | Charleston        | Fuseler, H. W. (3 EE)-----        | Charleston            |



| Name and Course              | Address          | Name and Course               | Address            |
|------------------------------|------------------|-------------------------------|--------------------|
| Gaddy, F. D. (1 E)†          | Lake View        | Graham, A. D. (3 TC)          | Rock Hill          |
| Gage, G. W. (3 T)            | Anderson         | Graham, C. C. (1 V Ag Ed)†    | Mt. Ulla, N. C.    |
| Gage, T. W. (1 E)†           | Anderson         | Graham, J. B. (1 V Ag Ed)†    | Naranja, Fla.      |
| Gaillard, W. M. (2 EE)       | Eutawville       | Graham, J. H. (1 A)†          | Anderson           |
| Gaillard, W. S. (3 AH)       | Eutawville       | Graham, R. L. (1 E)†          | Greenville         |
| Galway, J. E. W. (1 E)†      | Greenville       | Gramling, A. C. (1 V Ag Ed)†  | Orangeburg         |
| Gamble, J. B. (1 E)†         | Turbeville       | Gramling, F. W. (2 V Ag Ed)   | Orangeburg         |
| Gambrell, D. H. (3 A)        | Seneca           | Gramling, R. M. (3 V Ag Ed)   | Orangeburg         |
| Gandy, A. P. (4 Ag Ec)       | Hartsville       | Gramling, W. H. (2 V Ag Ed)   | Orangeburg         |
| Gantt, P. A. (4 V Ag Ed)     | Jefferson        | Grantham, D. L. (1 Ar)†       | Savannah, Ga.      |
| Garbade, A. B. (1 GS)†       | Ridgeland        | Grantham, J. R. (3 V Ag Ed)   | Dillon             |
| Gardner, E. G. (3 Ar)        | Lancaster        | Graves, C. C. (1 GS)          | Pageland           |
| Gardner, F. R. (2 E)†        | Savannah, Ga.    | Graves, J. L. (2 V Ag Ed)     | Ravenel            |
| Gardner, H. R. (1 GS)†       | Lancaster        | Gray, F. F. (2 ME)            | Greenville         |
| Gardner, L. E. (3 CE)        | Chesterfield     | Gray, J. F. (3 D)             | Chester            |
| Gardner, W. A. (2 A)         | Hartsville       | Gray, W. J. (1 V Ag Ed)†      | Allendale          |
| Gardo, Norman (1 GS)†        | Arcadia          | Gray, Zack (4 T)              | Gray Court         |
| Garfinkel, Nathan (1 T)†     | Charleston       | Grayson, J. H. (1 V Ag Ed)†   | Yonges Island      |
| Garick, L. T. (4 C)          | Hopkins          | Grayson, L. A. (2 EE)         | Hardeeville        |
| Garner, A. R. (4 EE)         | Timmons ville    | Green, A. B. (1 GS)†          | Clayton, Ga.       |
| Garner, J. A. (2 ME)         | Hartsville       | Green, F. D. (1 GS)           | Rock Hill          |
| Garrett, J. S. (2 T)         | Norris           | Green, G. B. (2 EE)           | Columbia           |
| Garrett, P. T. (3 EE)        | Fountain Inn     | Greene, C. E. (1 GS)          | Anderson           |
| Garrett, T. M. (2 T)         | Norris           | Greene, C. L. (2 EE)          | Williston          |
| Garrett, W. C. (1 GS)†       | Charlotte, N. C. | Greene, Wm. A. (3 T)          | Orangeburg         |
| Garrison, J. S. (3 GS)       | Seneca           | Greene, Wilson (1 GS)†        | Sumter             |
| Garrison, T. E. (1 V Ag Ed)† | Anderson         | Gregg, F. A. (1 GS)†          | Mars Bluff         |
| Garwood, S. H. (2 A)         | Sumter           | Gregg, H. R. (2 A)            | Florence           |
| Gaskins, J. L. (4 V Ag Ed)   | Timmons ville    | Gregory, J. F. (2 C)          | Pauline            |
| Gasque, J. S. (1 E)†         | Conway           | Gregory, J. L. (2 T)          | Lockhart           |
| Gaston, C. C. (4 T)          | Charleston       | Gregory, P. A. (1 T)†         | Marietta, Ga.      |
| Gaston, J. D. (2 A)          | Carrollton, Ga.  | Griffin, E. W. (4 C)          | Belton             |
| Gates, W. F. (4 T)           | Anderson         | Griffin, J. R. C. (1 T)†      | Anderson           |
| Gay, M. P. (2 V Ag Ed)       | Kershaw          | Griffith, J. B. (1 A)†        | Liberty            |
| Geer, R. M. (4 Ar)           | Clemson          | Grimball, I. H. (3 T)         | Greenville         |
| Genet, G. R. F. (1 C)†       | Georgetown       | Grimball, T. P. (3 CE)        | Johns Island       |
| Gettys, B. W. (1 E)†         | Lugoff           | Groce, L. A. (2 Ar)           | Lyman              |
| Gettys, R. E. (1 A)†         | Lugoff           | Groot, H. A. (1 C)†           | Charleston         |
| Gheesling, E. B. (1 S)†      | Norwood, Ga.     | Guerard, E. P. (4 Ar)         | Columbia           |
| Gianpaolo, N. J. (2 Ed)      | Derby, Conn.     | Guerry, F. P. (4 V Ag Ed)     | Kingstree          |
| Gibert, J. W. (4 Hort)       | Rodman           | Guess, J. B. (2 A)            | Denmark            |
| Gibson, F. M. (1 TC)†        | Greenville       | Guess, J. H. (4 GS)           | Denmark            |
| Gibson, H. C. (4 V Ag Ed)    | Greenville       | Guest, T. F. (1 Ar)†          | Marietta           |
| Gifford, R. S. (2 T)         | Estill           | Gulley, A. A. (1 S)†          | Elberton, Ga.      |
| Gilchrist, H. A. (4 GS)      | Edgefield        | Guy, R. A. (4 TC)             | Chester            |
| Gillespie, R. M. (3 CE)      | Seneca           | Guyton, G. G. (3 TC)          | Sumter             |
| Gilliam, L. G. (3 CE)        | Union            | Guyton, R. A. (2 V Ag Ed)     | Marion             |
| Gilmore, W. C. (1 T)†        | Greenville       | Gwin, C. W. (2 A)†            | Augusta, Ga.       |
| Ginn, W. N. (2 ME)           | Varnville        | Hackett, C. B. (3 T)          | Spartanburg        |
| Gleason, R. N. (1 V Ag Ed)†  | Seneca           | Haddon, F. J. (1 Ch Engr)†    | Greenville         |
| Glenn, D. M. (1 T)†          | Union            | Haden, A. J. (1 E)†           | Brooklyn, N. Y.    |
| Glenn, J. P. (2 ME)          | Anderson         | Hair, B. B. (2 T)†            | Fountain Inn       |
| Glenn, Joe Davis (1 E)†      | Fair Play        | Hale, H. R. (2 TC)            | Kingsport, Tenn.   |
| Glenn, J. Douthit (1 E)†     | Pendleton        | Hall, C. W. (1 V Ag Ed)†      | Mt. Ulla, N. C.    |
| Glenn, R. M. (1 T)†          | Anderson         | Hall, H. P. (3 ME)            | Clemson            |
| Glenn, W. E. (1 T)           | Cheraw           | Hall, J. K. (1 C)†            | Kannapolis, N. C.  |
| Glover, J. B. (1 WD)         | St. Louis, Mo.   | Hall, L. W. (3 V Ag Ed)       | Iva                |
| Glymph, B. H. (3 V Ag Ed)    | Fair Play        | Hall, R. T. (2 TC)            | Cassatt            |
| Goblet, G. F. (1 I Ed)†      | Mt. Pleasant     | Hall, T. V. (2 A)†            | Spruce Pine, N. C. |
| Godfrey, J. B. (1 A)         | Gaffney          | Hall, W. A. (2 GS)            | Keyport, Wash.     |
| Godfrey, J. H. (1 T)†        | Fort Mill        | Hallman, W. E. (2 Ar)         | Aiken              |
| Godsey, J. C. (2 Ch Engr)†   | Laurens          | Hambright, C. I. (1 GS)†      | Greenville         |
| Goins, C. A. (4 GS)          | Anderson         | Hambright, M. T. (4 V Ag Ed)  | Grover, N. C.      |
| Golding, E. V. (3 EE)        | Waterloo         | Hamer, J. R. (2 A)            | Clio               |
| Goodman, J. L. (1 E)†        | Clemson          | Hamilton, Bruce (1 V Ag Ed)†  | Fort Mill          |
| Goodman, J. R. (1 E)†        | Clemson          | Hamilton, G. R. (2 A)         | Anderson           |
| Goodman, J. S. (1 E)†        | Clemson          | Hamilton, Jack Edward (2 T)   | Anderson           |
| Goodman, M. R. (1 E)†        | Rock Hill        | Hamilton, John Elmore (1 GS)† | Graniteville       |
| Goodman, S. B. (1 E)†        | Mountville       | Hammett, M. T. (1 E)†         | Great Falls        |
| Goodson, T. E. (3 Ar)        | Hartsville       | Hammond, C. E. (1 E)†         | Fairfax            |
| Goosby, R. D. (1 V Ag Ed)†   | Apopka, Fla.     | Hammond, J. G. (3 T)          | Greenville         |
| Gore, J. P. (3 EE)           | Greenville       | Hammond, L. C. (1 A)†         | Seneca             |
| Gore, N. V. (2 T)            | Greenville       | Hampton, C. O. (1 E)†         | Lockhart           |
| Gorman, Henry (1 Ch Engr)†   | Greenville       | Hance, G. W. (3 V Ag Ed)      | Heath Springs      |
| Gormley, C. J. (4 TC)        | Charleston       | Hancock, D. W. (2 A)          | Ruby               |

| Name and Course                 | Address            | Name and Course                  | Address              |
|---------------------------------|--------------------|----------------------------------|----------------------|
| Hane, G. M. (1 E)†              | Columbia           | Herndon, F. M. (2 T)             | Anderson             |
| Hanna, Dalton (1 A)†            | Leo                | Herrington, C. L. (2 A)          | Waynesboro, Ga.      |
| Hanna, H. H. (3 D)              | Blacksburg         | Hester, B. F. (3 T)              | St. George           |
| Hanna, L. G. (3 V Ag Ed)        | Hemingway          | Hester, Robert (4 Ch Engr)       | St. George           |
| Hardee, Edgar (1 V Ag Ed)†      | Conway             | Heyward, R. C. (4 T)             | Batesburg            |
| Hardee, J. C. (3 Agr)           | Loris              | Heyward, T. C. (4 ME)            | Charlotte, N. C.     |
| Harley, C. W. (1 T)†            | Lancaster          | Hickerson, R. A. (2 T)           | Morris Plains, N. J. |
| Harley, J. H. (1 CE)            | St. George         | Hicks, W. L. (3 EE)              | Mooresboro, N. C.    |
| Harley, T. R. (3 C)             | Hartsville         | Hickson, E. L. (1 E)†            | Cheraw               |
| Harling, R. E. (2 ME)           | Inman              | Hiers, J. M. (1 V Ag Ed)         | Smoaks               |
| Harmon, K. S. (4 V Ag Ed)       | Gaffney            | Hiers, M. D. (4 EE)              | Columbia             |
| Harmon, L. C. (2 TC)†           | Concord, N. C.     | Higgins, J. C. (1 Ar)†           | Rock Hill            |
| Harmon, M. N. (3 V Ag Ed)       | Lexington          | Hilburn, J. E. (1 E)†            | Dublin, Ga.          |
| Harmon, S. N. (1 A)†            | Gilbert            | Hill, A. E. (1 E)†               | Spartanburg          |
| Harpe, A. S. (1 V Ag Ed)†       | Aynor              | Hill, D. K. (2 A)                | Effingham            |
| Harper, J. J. (3 ME)            | Seneca             | Hill, D. N. (2 GS)               | Abbeville            |
| Harper, S. D. (2 CE)            | Florence           | Hill, H. B. (2 EE)               | Lake City            |
| Harper, S. M. (2 EE)            | Andrews            | Hinnant, C. R. (1 A)             | Ridgeway             |
| Harper, W. E. (1 E)†            | Honea Path         | Hinnant, F. K. (2 A)             | Ridgeway             |
| Harrington, L. B. (1 V Ag Ed)†  | Manning            | Hiott, E. D. (2 EE)              | St. Matthews         |
| Harris, H. L. (3 V Ag Ed)       | Conway             | Hite, C. W. (2 T)                | Bennettsville        |
| Harris, M. E. (2 A)             | Harlan, Ky.        | Hobson, W. M. (1 A)†             | Belton               |
| Harris, W. M. (1 V Ag Ed)†      | Westminster        | Hodges, H. M. (1 S)†             | Bogue Chitto, Miss.  |
| Harrison, A. A. (1 S)†          | Samson, Ala.       | Hodges, J. P. (1 E)†             | Blenheim             |
| Harrison, B. S. (3 GS)          | Rocky Mount, N. C. | Hodges, R. F. (3 ME)             | Union                |
| Harrison, E. L. (2 E)           | Georgetown         | Hogue, S. W. (1 E)†              | Camden               |
| Harrison, J. H. (4 ME)          | Troy               | Holcombe, R. O. (3 T)            | Fountain Inn         |
| Harrison, J. R. (3 CE)          | Georgetown         | Holley, E. B. (2 ME)             | Aiken                |
| Hart, B. B. (2 TC)              | Anderson           | Holley, F. L. (2 A)              | Aiken                |
| Harter, J. R. (3 V Ag Ed)       | Fairfax            | Holliday, J. C. (1 V Ag Ed)†     | Liberty              |
| Hartley, J. C. (2 EE & ME)      | Greenwood          | Holliday, W. W. (1 A)†           | Kingstree            |
| Harvey, J. M. (1 Ch Engr)†      | Jacksonville, Fla. | Hollingsworth, C. K. (1 V Ag Ed) | Troy                 |
| Hasell, S. M. (1 E)†            | Charleston         | Hollis, H. W. (1 A)†             | Rock Hill            |
| Hasell, Alfred (3 ME)           | Gaffney            | Holmes, C. P. (1 V Ag Ed)†       | Johnston             |
| Hawkins, B. V. (3 A & V Ag Ed)† | Campobello         | Holmes, F. S. (2 EE)             | Denmark              |
| Hawkins, J. V. (1 Ag Engr)†     | Hartsville         | Holmes, H. H. (1 GS)†            | Conway               |
| Hawkins, M. R. (1 Ch Engr)†     | Charleston         | Holroyd, R. E. (2 Ar)            | Anderson             |
| Hawkins, T. P. (3 Ar)           | Greenville         | Holtzendorff, P. B. (2 GS)       | Clemson              |
| Hawkins, W. C. (1 I Ed)†        | Central            | Hooker, W. P. (1 C)†             | Charleston           |
| Hayden, E. A. (2 ME)†           | Augusta, Ga.       | Hooks, A. V. (1 E)†              | Columbia             |
| Hayes, C. B. (3 T)              | Lyman              | Hopkins, Sloan (2 V Ag Ed)       | Tamassee             |
| Hayes, J. P. (4 V Ag Ed)        | Nichols            | Horne, Major (1 A)†              | Lake View            |
| Heape, J. M. (3 T)              | Charleston         | Horne, W. L. (2 Ar)              | Greenwood            |
| Hearon, R. L. (3 Ag Engr)       | Bishopville        | Horner, L. C. (4 GS)             | Chester              |
| Heatwole, T. H. (4 TC)          | Arlington, Va.     | Horton, C. C. (1 GS)†            | Pendleton            |
| Hedden, F. H. (1 Ag Engr)†      | Walhalla           | Horton, F. H. (2 GS)             | Columbia             |
| Hegler, T. C. (1 T)†            | Kershaw            | Horton, J. I. (2 GS)             | Columbia             |
| Heinsohn, J. H. (1 E)†          | Charleston         | Horton, L. S. (3 V Ag Ed)        | Pageland             |
| Hemphill, J. C. (1 Ar)†         | Columbia           | Horton, R. E. (2 A)              | Pageland             |
| Hemphill, R. A. (2 GS)          | Trenton            | Horton, V. F. (1 V Ag Ed)†       | Angelus              |
| Hempstead, R. L. (2 Ch Engr)    | Abbeville          | Horton, W. F. (3 T)              | Belton               |
| Henderson, G. C. (1 T)†         | Greenwood          | Houch, J. L. (3 ME)              | Cordova              |
| Henderson, H. C. (1 E)†         | Charlotte, N. C.   | Hough, J. S. (2 V Ag Ed)         | Edgefield            |
| Henderson, J. C. (1 E)          | Greenville         | Houghton, J. B. (1 E)†           | Charleston           |
| Henderson, J. R. (2 EE)         | Verdery            | Hovis, J. D. (1 TC)†             | Greenville           |
| Henderson, R. P. (2 A)          | Ninety Six         | Howard, C. R. (1 TC)†            | North Augusta        |
| Henderson, W. N. (2 Ag Engr)    | Ninety Six         | Howard, F. C. (2 TC)†            | Taylors              |
| Henderson, W. T. (4 T)          | Greenville         | Howard, J. W. (2 T)              | Greenville           |
| Hendricks, B. L. (4 AH)         | Dacusville         | Howard, T. G. (4 GS)             | Lyman                |
| Hendricks, G. H. (3 T)          | Easley             | Howie, J. B. (3 Agr)             | Anderson             |
| Hendrix, C. E. (4 Ag Engr)      | Greenville         | Hubbard, J. C. (1 T)†            | Lancaster            |
| Hendrix, G. B. (1 V Ag Ed)†     | Lexington          | Hubbard, R. C. (3 V Ag Ed)       | Seneca               |
| Hendrix, T. M. (2 EE)           | Prosperity         | Huckaby, J. P. (3 V Ag Ed)       | Enoree               |
| Heniford, B. M. (3 A)†          | Loris              | Hudgens, R. L. (3 GS)            | Spartanburg          |
| Henriquez, G. D. (2 A)          | Havana, Cuba       | Hudson, B. F. (1 A)†             | Timmonsville         |
| Henry, G. C. (2 T)              | Spartanburg        | Hudson, W. M. (4 Ar)             | Spartanburg          |
| Henry, R. E. S. (2 ME)          | Clemson            | Huff, R. B. (3 C)                | Charleston           |
| Henry, R. L. (4 ME)             | Simpsonville       | Huffine, J. H. (2 GS)            | Nashville, Tenn.     |
| Henry, W. J. (1 TC)†            | Chester            | Huggin, F. E. (1 E)†             | Gaffney              |
| Henson, S. (3 T)                | Spartanburg        | Huggins, R. B. (2 AH)            | Johnsonville         |
| Heriot, J. D. (3 Ag Engr)       | Dalzell            | Hughes, D. G. (4 I Ed)           | Union                |
| Herlong, D. C. (1 V Ag Ed)†     | Johnston           | Hughes, Frederick (4 GS)         | North Charleston     |
| Herlong, H. K. (4 Ag Engr)      | Spartanburg        | Hughes, R. A. (1 T)†             | Ninety Six           |
|                                 |                    | Hughes, S. C. (1 E)†             | Hampton              |
|                                 |                    | Hughey, J. D. (3 V Ag Ed)        | Greer                |
|                                 |                    | Huguenin, E. P. (2 V Ag Ed)      | Ridgeland            |



| Name and Course              | Address                    | Name and Course                | Address                |
|------------------------------|----------------------------|--------------------------------|------------------------|
| Huiet, W. C. (1 A)†          | Johnston                   | Jones, Guy W. (2 V Ag Ed)      | Greenville             |
| Hunley, C. L. (2 V Ag Ed)    | Chesterfield               | Jones, H. C. (3 GS)            | Saluda                 |
| Hunnicut, W. C. (1 T)†       | Anderson                   | Jones, H. E. (3 ME)            | Pickens                |
| Hunt, B. D. (3 I Ed)         | Westminster                | Jones, J. B. (3 Ch Engr)       | Buffalo                |
| Hunt, E. F. (1 V Ag Ed)†     | Dacusville                 | Jones, J. D. (2 T)             | Buffalo                |
| Hunt, F. M. (3 TIE)          | Liberty                    | Jones, J. H. (2 Ag Engr)†      | Boiling Springs, N. C. |
| Hunt, S. C. (3 EE)           | Greenville                 | Jones, J. W. (1 E)†            | Pickens                |
| Hunter, Bill (2 CE)          | Spartanburg                | Jones, L. F. (4 CE)            | Walhalla               |
| Hunter, E. D. (2 T)          | Edisto Island              | Jones, L. T. (1 A)†            | Congaree               |
| Hunter, J. C. (3 GS)         | Liberty                    | Jones, R. H. (1 T)†            | Greenwood              |
| Hunter, M. R. (1 GS)†        | Gray Court                 | Jones, R. M. (4 GS)            | Saluda                 |
| Hunter, R. V. (2 A)          | Adams Run                  | Jones, S. J. (1 E)†            | Charleston             |
| Huntley, D. M. (2 V Ag Ed)†  | Ruby                       | Jones, W. I. (1 GS)†           | Great Falls            |
| Hurst, F. M. (2 EE)          | Anderson                   | Jordan, B. S. (S)              | Clemson                |
| Huskey, J. B. (3 Ar)         | Spartanburg                | Jordan, J. E. (2 V Ag Ed)      | Jefferson              |
| Hutchinson, D. M. (4 ME)     | Columbia                   | Jordan, L. R. (1 GS)†          | Columbia               |
| Hutchinson, W. C. (1 A)†     | Florence                   | Jordan, U. B. (1 A)†           | Bishopville            |
| Hyder, B. G. (1 Ar)†         | Gaffney                    | Jordan, W. W. (3 V Ag Ed)      | Timmons ville          |
| Hyman, J. A. (1 A)†          | Pamplico                   | Josey, H. A. (1 T)†            | Anderson               |
| Inabinit, W. B. (2 ME)       | Bishopville                | Joyce, D. T. (3 AH)            | Greenwood              |
| Inabnit, F. H. (2 A)         | Orangeburg                 | Julian, F. M. (2 GS)†          | Central                |
| Ingram, C. O. (1 E)†         | Ridgeland                  | Kalwitz, M. F. (1 E)†          | Park Ridge, Ill.       |
| Irby, G. S. (3 C)            | Woodruff                   | Kane, J. J. (1 GS)†            | Greenwich, Conn.       |
| Irby, W. C. (1 E)†           | Florence                   | Kaufman, Alfred (1 T)†         | Greenville             |
| Irick, E. F. (2 GS)          | Elloree                    | Kay, C. W. (1 T)†              | Anderson               |
| Irwin, W. P. (4 T)           | Spartanburg                | Kay, R. L. (1 Ch Engr)†        | Walhalla               |
| Ivey, E. M. (3 T)            | LaGrange, Ga.              | Kay, T. L. (1 E)†              | Walterboro             |
| Ivey, J. D. (3 ME)           | LaGrange, Ga.              | Kearse, F. M. (2 A)            | Ehrhardt               |
| Jackson, C. C. (2 V Ag Ed)   | Camden                     | Kearse, W. H. (2 ME)           | Olar                   |
| Jackson, E. C. (2 V Ag Ed)   | Starr                      | Kee, J. M. (4 EE)              | Rock Hill              |
| Jackson, J. C. (1 V Ag Ed)†  | Edgefield                  | Keel, S. T. (3 CE)             | Allendale              |
| Jackson, Nelson (1 T)†       | Tryon, N. C.               | Keith, W. F. (1 E)†            | Anderson               |
| Jackson, R. F. (4 Ag Ec)     | Sumter                     | Keitt, B. H. (4 T)             | Newberry               |
| Jackson, R. N. (1 Ar)†       | Gray Court                 | Kelley, J. A. (1 Ar)†          | Liberty                |
| Jackson, S. F. (2 GS)        | Atlantic Beach, Fla.       | Kelly, B. N. (1 A)†            | Union                  |
| Jackson, W. L. (2 V Ag Ed)   | Camden                     | Kelly, E. S. (4 T)             | Anderson               |
| Jackson, W. O. (3 V Ag Ed)   | Starr                      | Kelly, J. G. (2 T)             | Rock Hill              |
| Jaackel, H. E. (2 EE)        | Beaufort                   | Kelly, J. W. (4 D)             | Bishopville            |
| James, B. M. (1 E)†          | Fort F. E. Warren, Wyoming | Kelly, W. F. (1 CE)            | Anderson               |
| James, G. H. (3 T)           | Greenville                 | Kemp, O. M. (1 E)†             | Key West, Fla.         |
| Jameson, L. H. (1 T)†        | Easley                     | Kendrick, T. F. (1 E)†         | Laurens                |
| Jaudon, R. H. (1 E)†         | Spartanburg                | Kennedy, D. B. (1 E)†          | Charleston             |
| Jay, J. E. (3 T)             | Greenwood                  | Kennedy, G. C. (3 Ag Engr)     | New Zion               |
| Jeffcoat, B. D. (3 AH)       | Florence                   | Kennedy, H. M. (2 T)           | New Zion               |
| Jeffcoat, B. O. (1 V Ag Ed)† | North                      | Kerhulas, T. E. (3 GS)         | Union                  |
| Jenkins, M. E. (1 C)†        | Charleston                 | Kerr, W. E. (1 A)†             | Columbia               |
| Jenkins, M. I. (2 A)         | Yonges Island              | Kerrison, E. H. (4 AH)         | Charleston             |
| Jenkins, S. T. (2 T)         | Lando                      | Kienzie, W. J. (3 ME)          | Bethlehem, Pa.         |
| Jennings, K. B. (1 Ch Engr)† | Charleston                 | Kimberly, K. R. (1 S)†         | Eastman, Ga.           |
| Jennigan, W. A. (1 E)†       | Florence                   | Kimbrell, M. R. (3 EE)†        | Charlotte, N. C.       |
| Jessen, H. H. (1 E)†         | Summerville                | Kinder, W. C. (1 Ar)†          | Kingstree              |
| Johnson, A. B. (2 Ar)        | Spartanburg                | King, A. P. (2 A)              | Ninety Six             |
| Johnson, C. E. (4 CE)        | Newberry                   | King, B. N. (1 V Ag Ed)†       | Loris                  |
| Johnson, F. D. (4 V Ag Ed)   | Saluda, N. C.              | King, F. M. (4 V Ag Ed)        | Seneca                 |
| Johnson, G. A. (1 A)†        | Mullins                    | King, G. E. (1 A)              | McBee                  |
| Johnson, H. A. (2 D)         | Aiken                      | King, M. L. (1 Ch Engr)†       | Clemson                |
| Johnson, H. C. (1 E)†        | Trenton                    | King, R. A. (3 T)              | Abbeville              |
| Johnson, H. M. (1 E)†        | Bamberg                    | Kirby, G. W. (2 T)             | Greenville             |
| Johnson, J. F. (1 S)†        | Head River, Ga.            | Kirby, M. D. (3 Agr)           | Timmons ville          |
| Johnson, J. W. (3 V Ag Ed)   | Easley                     | Kirby, T. S. (1 A)             | Ft. Pierce, Fla.       |
| Johnson, L. K. (1 GS)†       | Charlotte, N. C.           | Kirchner, A. H. (3 GS)         | Greenville             |
| Johnson, L. M. (3 V Ag Ed)   | Edgefield                  | Kirk, J. M. (4 V Ag Ed)        | Heath Springs          |
| Johnson, M. C. (4 EE)        | Cottageville               | Kirkland, R. W. (2 ME)         | Newberry               |
| Johnson, O. H. (1 A)†        | Nesmith                    | Kirkpatrick, O. S. (2 V Ag Ed) | Great Falls            |
| Johnson, R. C. (2 T)         | Chappells                  | Kirton, J. J. (4 Ch Engr)      | Cades                  |
| Johnston, A. E. (1 E)†       | Greenville                 | Kirven, W. W. (1 Ag Engr)†     | Darlington             |
| Johnstone, E. P. (4 GS)      | Newberry                   | Kiser, J. P. (1 E)†            | Bowman                 |
| Jolly, G. C. (3 T)           | Anderson                   | Kiser, W. R. (1 GS)†           | Laurens                |
| Jones, A. W. (1 V Ag Ed)     | Nichols                    | Kivett, T. L. (2 Ar)           | Greenville             |
| Jones, C. L. (3 ME)          | Columbia                   | Klinck, J. M. (1 GS)†          | North Augusta          |
| Jones, C. M. (4 Agr)         | Dacusville                 | Klugh, E. P. (2 T)             | Greenwood              |
| Jones, E. H. (4 V Ag Ed)     | Nichols                    | Klugh, T. S. (2 T)             | Clemson                |
| Jones, E. L. (2 V Ag Ed)     | Lake City                  | Knece, E. H. (1 A)†            | Aiken                  |
| Jones, E. M. (4 T)           | Greenville                 | Knece, J. D. (1 A)†            | Gilbert                |

| Name and Course                     | Address           | Name and Course                      | Address               |
|-------------------------------------|-------------------|--------------------------------------|-----------------------|
| Knox, F. T. (4 CE)-----             | Norwood, Pa.      | Loughlin, W. J. (1 E)†-----          | Cos Cob, Conn.        |
| Knox, H. B. (3 T)-----              | Iva               | Lovedahl, J. O. (1 S)†-----          | Cowarts, N. C.        |
| Kolb, K. W. (3 Ch Engr)-----        | Savannah, Ga.     | Lowder, J. M. (3 V Ag Ed)-----       | Turbeville            |
| Lachicotte, A. S. (2 TC)-----       | Waverly Mills     | Lowe, F. D. (2 GS)-----              | Columbia              |
| Ladd, T. A. (2 TC)-----             | Dawkins           | Lowe, W. H. (2 T)-----               | Union                 |
| Lafaye, W. L. (4 Ar)-----           | Columbia          | Loyless, E. M. (4 T)-----            | Greenwood             |
| LaGrone, W. E. (2 CE)-----          | Johnston          | Lucas, T. E. (2 T)-----              | York                  |
| Lambo, A. F. (1 E)†-----            | Cheshire, Conn.   | Lucius, C. G. (1 A)†-----            | West Palm Beach, Fla. |
| Lancaster, Stanley (2 T)-----       | Spartanburg       | Luellen, J. B. (1 GS)†-----          | New Castle, Ind.      |
| Land, J. S. (3 CE)†-----            | Columbia          | Luhn, W. P. (1 I Ed)†-----           | Charleston            |
| Lane, C. S. (3 ME)-----             | Timmons ville     | Lybrand, W. M. (1 T)†-----           | Charlotte, N. C.      |
| Lane, E. E. (1 A)†-----             | Mullins           | Lyles, J. T. (4 GS)-----             | Columbia              |
| Lane, J. V. (1 Ch Engr)†-----       | Dillon            | Lynch, R. M. (2 ME)-----             | East Orange, N. J.    |
| Lanford, L. E. (3 V Ag Ed)-----     | Woodruff          | Lynes, J. M. (4 AH)-----             | Fairfax               |
| Langford, P. W. (4 Hort)-----       | Clemson           | Lynes, R. M. (3 GS)-----             | Fairfax               |
| Langford, R. H. (2 EE)-----         | Saluda            | Lynn, M. H. (2 A)†-----              | Richburg              |
| Langston, V. H. (1 GS)†-----        | Orlando, Fla.     | Lyon, F. W. (1 V Ag Ed)-----         | Edgefield             |
| Lapham, J. M. (4 AH)-----           | New Canaan, Conn. | Lytton, J. L. (2 ME)-----            | Cheraw                |
| LaRoche, E. A. (1 T)†-----          | Johns Island      | Lytton, K. G. (2 A)-----             | Gastonia, N. C.       |
| Law, W. C. (3 GS)-----              | Hartsville        | McAdams, D. A. (2 T)-----            | Iva                   |
| Lawter, L. B. (1 E)†-----           | Spartanburg       | McAlhany, H. J. (4 GS)-----          | Branchville           |
| Lawton, C. B. (3 C)-----            | Fairfax           | McAlister, P. W. (2 T)-----          | Spartanburg           |
| Lawton, J. G. (3 GS)-----           | York              | McAlpine, L. E. (4 EE)-----          | Union                 |
| Lawton, M. R. (3 GS)-----           | Garnett           | McCarley, G. H. (4 AH)-----          | Anderson              |
| Lawton, P. S. (4 Agr)-----          | Garnett           | McClam, R. L. (2 V Ag Ed)-----       | Leo                   |
| Lawton, T. O. (4 GS)-----           | Garnett           | McClanahan, W. A. (1 C)-----         | Spartanburg           |
| League, M. R. (1 T)†-----           | Greenville        | McClure, G. W. (3 Agr)-----          | Beaufort              |
| Leake, F. S. (1 A)†-----            | Fountain Inn      | McClure, J. B. (3 Hort)-----         | Anderson              |
| Ledford, R. C. (1 V Ag Ed)†-----    | Gaffney           | McConnell, F. F. (1 Ch Engr)†-----   | Anderson              |
| Lee, J. B. (3 Ar)-----              | Alcolu            | McCord, R. L. (2 GS)-----            | Greenwood             |
| Lee, P. E. (4 Ar)-----              | Greenville        | McCorkle, P. H. (4 GS)-----          | York                  |
| Lee, W. L. (4 Ag Engr)-----         | Hamer             | McCormick, J. D. (1 E)†-----         | North                 |
| Leffer, A. L. (1 TC)†-----          | Spartanburg       | McCorsley, E. F. (1 C)†-----         | Little River          |
| Legare, E. V. (1 A)†-----           | Johns Island      | McCown, K. J. (4 EE)-----            | Anderson              |
| Leigh, H. D. (3 ME)-----            | Summerton         | McCoy, J. H. (1 Ar)†-----            | Sumter                |
| LeMaster, H. H. (1 A)†-----         | Gaffney           | McCoy, W. T. (2 T)-----              | Camden                |
| LeMaster, H. L. (2 A)-----          | Gaffney           | McCrary, R. R. (4 GS)-----           | Clinton               |
| Lemma, J. C. (3 AH)-----            | Winnsboro         | McCrary, W. V. (3 T)-----            | Anderson              |
| Leonard, B. R. (1 V Ag Ed)†-----    | Donalds           | McCurry, E. T. (4 EE)-----           | Anderson              |
| Leonhirth, William (2 T)-----       | Sumter            | McCutchen, L. E. (2 CE)-----         | Union                 |
| Lesesne, C. B. (1 T)†-----          | Columbia          | McCutchen, W. G. (2 V Ag Ed)-----    | Bishopville           |
| Lesesne, E. H. (2 CE)-----          | Charleston        | McDaniel, W. E. (1 GS)†-----         | Pelzer                |
| Lester, J. R. (1 A)†-----           | Newberry          | McDonald, W. S. (1 E)†-----          | Georgetown            |
| Lester, J. W. (1 V Ag Ed)†-----     | Saluda            | McDowell, E. B. (2 V Ag Ed)-----     | Kershaw               |
| Lester, N. R. (4 V Ag Ed)-----      | Newberry          | McElveen, N. R. (1 E)†-----          | Columbia              |
| Lever, J. H. (4 AH)-----            | Columbia          | McFadden, J. B. (3 Ag Ec)-----       | Great Falls           |
| Lever, J. J. (2 A)-----             | Columbia          | McFaddin, Douglass (1 Ag Engr)†----- | New Zion              |
| Lever, J. Q. (1 Ag Engr)†-----      | Columbia          | McFaddin, N. J. (4 Agr)-----         | Sardinia              |
| Levin, J. H. (3 TC)-----            | Beaufort          | McFaddin, G. R. (2 CE)-----          | Pickens               |
| Levine, L. J. (1 E)†-----           | Lake City         | McGill, J. L. (1 A)†-----            | York                  |
| Lewis, A. D. (1 A)†-----            | Aynor             | McGinty, W. M. (3 GS)-----           | Clemson               |
| Lewis, M. E. (1 V Ag Ed)†-----      | Galivants Ferry   | McGowan, S. B. (3 CE)-----           | Columbia              |
| Lightsey, J. H. (1 Ag Engr)†-----   | Brunson           | McIntosh, W. A. (3 C)-----           | Summerville           |
| Ligon, W. S. (1 T)†-----            | Anderson          | McKagen, O. H. (2 V Ag Ed)-----      | Kershaw               |
| Liles, J. R. (3 CE)-----            | McColl            | McKee, L. G. (1 TC)†-----            | Chester               |
| Linder, B. E. (1 V Ag Ed)†-----     | Gaffney           | McKenzie, G. D. (1 T)†-----          | Florence              |
| Lindler, H. R. (1 A)†-----          | Chapin            | McKenzie, J. C. (2 V Ag Ed)-----     | Scranton              |
| Lindley, H. N. (1 GS)†-----         | Clemson           | McKenzie, S. A. (3 V Ag Ed)-----     | Mullins               |
| Lindsay, J. B. (3 CE)-----          | Clemson           | McKeown, A. B. (1 Ch Engr)†-----     | Charlotte, N. C.      |
| Lindsay, R. J. (3 EE)-----          | Chester           | McKeown, Harry (3 ME)-----           | Spartanburg           |
| Lindsay, W. D. (1 T)†-----          | Chester           | McKeown, W. H. (2 T)-----            | Chester               |
| Linge, W. C. (1 E)†-----            | Bethlehem, Pa.    | McKinney, H. E. (1 T)-----           | Greenwood             |
| Link, R. A. (1 C)†-----             | Abbeville         | McKinney, J. G. (2 GS)-----          | Georgetown            |
| Lipscomb, J. B. (4 V Ag Ed)-----    | Ninety Six        | McKnight, B. G. (2 GS)-----          | Blythewood            |
| Little, I. F. (3 T)-----            | Belton            | McKnight, J. C. (3 GS)-----          | Blythewood            |
| Little, W. H. (3 WD)-----           | Belton            | McLaughlin, J. J. (2 ME)-----        | Charleston            |
| Littlejohn, A. C. (2 EE)†-----      | Jonesville        | McLaulin, B. L. (1 I Ed)†-----       | Kingstree             |
| Littlejohn, C. E. (3 Ch Engr)-----  | Raleigh, N. C.    | McLaurin, C. H. (3 C)-----           | St. Matthews          |
| Livingston, G. F. (2 Ch Engr)-----  | Leesville         | McLaurin, K. F. (3 GS)-----          | St. Matthews          |
| Livingston, R. S. (1 V Ag Ed)†----- | Woodford          | McLean, C. S. (2 T)-----             | Greer                 |
| Locklear, Rhett (1 V Ag Ed)†-----   | Trio              | McLean, W. K. (2 V Ag Ed)-----       | Blythewood            |
| Lominack, E. K. (3 I Ed)-----       | Newberry          | McLendon, E. K. (1 E)-----           | Memphis, Tenn.        |
| London, J. R. (2 T)-----            | Rock Hill         | McLeod, B. F. (4 EE)-----            | Clio                  |
| Long, R. A. (2 EE)-----             | Greenwood         | McLeod, R. K. (1 GS)†-----           | Sumter                |
| Long, R. F. (1 E)†-----             | Bethlehem, Pa.    |                                      |                       |



| Name and Course                   | Address               | Name and Course                  | Address           |
|-----------------------------------|-----------------------|----------------------------------|-------------------|
| McLeod, R. R. (2 EE)-----         | Hartsville            | Miley, G. F. (1 V Ag Ed)†-----   | Brunson           |
| McLure, J. W. (1 E)†-----         | Union                 | Miley, W. F. (4 V Ag Ed)-----    | Brunson           |
| McMahan, E. O. (2 C)-----         | Sanford, N. C.        | Miller, Boyce (S)-----           | Greenville        |
| McMakin, G. C. (3 Ch Engr)-----   | Wellford              | Miller, G. M. (3 EE)-----        | Greenwood         |
| McMaster, J. F. (2 T)-----        | Winnboro              | Miller, H. E. (S)-----           | Ridgeland         |
| McMaster, R. G. (2 A)-----        | Winnboro              | Miller, H. F. (2 V Ag Ed)-----   | Jefferson         |
| McMillan, G. M. (3 T)-----        | Chattanooga, Tenn.    | Miller, J. H. (2 EE)-----        | Columbia          |
| McMillan, H. C. (1 GS)†-----      | Allendale             | Miller, L. L. (4 V Ag Ed)-----   | Hamer             |
| McMillan, H. O. (1 Ag Engr)†----- | Minneapolis, Minn.    | Miller, M. B. (1 A)†-----        | Nichols           |
| McMillan, J. (4 Hort)-----        | Saluda                | Miller, M. B. (4 I Ed)-----      | Charleston        |
| McMillan, J. A. (2 GS)-----       | Bamberg               | Miller, W. E. (2 V Ag Ed)-----   | Camden            |
| McMillan, J. F. (1 C)†-----       | Clinton               | Mills, C. B. (1 E)†-----         | Cross Hill        |
| McNair, H. S. (2 T)-----          | Patrick               | Mills, F. C. (3 ME)-----         | Acworth, Ga.      |
| McNair, T. T. (4 GS)-----         | Salley                | Mills, W. L. (3 V Ag Ed)-----    | Campobello        |
| McNair, W. H. (2 A)-----          | Gable                 | Milton, S. J. (1 Ch Engr)†-----  | Charleston        |
| McPhail, F. E. (3 V Ag Ed)-----   | Iva                   | Mims, E. H. (2 GS)-----          | Columbia          |
| McTeer, T. A. (1 E)†-----         | McClellanville        | Mims, P. G. (4 EE)-----          | Lamar             |
| Macartney, O. K. (3 T)-----       | Alta Vista, Va.       | Mitchell, R. E. (2 EE)-----      | Greenville        |
| Mace, J. S. (2 Ch Engr)-----      | Charleston            | Mitchell, W. B. R. (4 EE)-----   | Charleston        |
| Mack, T. L. (1 V Ag Ed)†-----     | Swansea               | Mobley, F. B. (3 V Ag Ed)-----   | Lodge             |
| Mackintosh, D. M. (2 CE)-----     | Rock Hill             | Monckton, W. H. (4 T)-----       | Columbia          |
| Mackintosh, J. D. (4 CE)-----     | McClellanville        | Montgomery, J. B. (4 T)-----     | Spartanburg       |
| Mackintosh, R. H. (1 GS)†-----    | Rock Hill             | Moon, C. C. (3 WD)-----          | Spartanburg       |
| Macpherson, W. J. (1 E)†-----     | Brunswick, Ga.        | Moon, H. D. (3 I Ed)-----        | Westminster       |
| Magee, W. W. (4 GS)-----          | Nashville, Tenn.      | Mooney, W. H. (2 T)-----         | Hawkinsville, Ga. |
| Mahon, P. M. (4 EE)-----          | Calhoun Falls         | Moore, E. L. (3 EE)-----         | Clemson           |
| Maness, L. E. (2 CE)-----         | Georgetown            | Moore, F. L. (4 C)-----          | Kingstree         |
| Mann, D. H. (1 V Ag Ed)†-----     | Six Mile              | Moore, G. S. (3 Ar)-----         | Rock Hill         |
| Manning, L. W. (3 EE)-----        | Latta                 | Moore, G. T. (1 Ar)†-----        | Greenville        |
| Manning, W. H. (3 Ag Engr)-----   | Barnwell              | Moore, H. B. (1 T)†-----         | Rock Hill         |
| Manville, E. P. (1 E)†-----       | Tryon, N. C.          | Moore, J. B. (4 CE)-----         | McColl            |
| Mappus, W. A. (3 C)-----          | Charleston            | Moore, R. N. (1 V Ag Ed)†-----   | Calhoun           |
| Marett, H. D. (3 V Ag Ed)-----    | Fair Play             | Moore, W. E. (2 T)-----          | Commerce, Ga.     |
| Maroney, J. P. (4 T)-----         | Fountain Inn          | Moorer, D. F. (3 C)-----         | St. George        |
| Marshall, R. B. (3 GS)-----       | West Union            | Moorer, T. R. (3 Ed)-----        | Charleston        |
| Martin, C. S. (1 T)†-----         | Greenville            | Moorer, W. G. (1 E)†-----        | Florence          |
| Martin, E. E. (2 A)-----          | Gray Court            | Moorer, W. J. (1 I Ed)†-----     | Harleyville       |
| Martin, E. F. (2 CE)-----         | New York, N. Y.       | Moorman, R. W. (3 CE)-----       | Clemson           |
| Martin, J. C. (1 E)†-----         | Chesnee               | Morgan, A. M. (1 V Ag Ed)†-----  | Piedmont          |
| Martin, J. L. (2 ME)-----         | Spartanburg           | Morgan, C. C. (1 T)†-----        | McCormick         |
| Martin, J. R. (4 ME)-----         | Anderson              | Morgan, D. C. (4 Agr)-----       | Wellford          |
| Martin, L. C. (2 A)-----          | Walhalla              | Morgan, P. E. (3 GS)-----        | Gaffney           |
| Martin, T. M. (1 GS)†-----        | Pineville             | Morgan, R. E. (1 E)†-----        | Plum Branch       |
| Martinell, R. A. (2 TC)-----      | Enoree                | Morgan, S. C. (2 A)-----         | Central           |
| Marvin, E. A. (4 AH)-----         | Green Pond            | Morris, E. W. (1 Ar)†-----       | Greenville        |
| Marvin, J. H. (2 T)-----          | Lobeco                | Morris, J. E. (1 A)†-----        | Charlotte, N. C.  |
| Marvin, O. D. (1 Ar)†-----        | Yemassee              | Morris, L. D. (2 T)-----         | Olar              |
| Marvin, R. E. (1 E)†-----         | Ritter                | Morris, R. F. (1 T)-----         | Charlotte, N. C.  |
| Mason, J. L. (1 V Ag Ed)†-----    | Westminster           | Moss, R. W. (3 GS)-----          | Charleston        |
| Mason, W. E. (1 T)-----           | Pacolet Mills         | Muller, J. C. (3 Ar)-----        | Charleston        |
| Massey, L. M. (3 EE)-----         | Fort Mill             | Mulling, F. J. (3 Ch Engr)-----  | Pritchardville    |
| Mathias, F. T. (1 V Ag Ed)†-----  | Lexington             | Mullins, W. A. (1 T)†-----       | Sylacauga, Ala.   |
| Mathis, W. H. (3 GS)-----         | Augusta, Ga.          | Murph, J. L. (2 CE)-----         | Seneca            |
| Mattei, F. A. M. (2 GS)†-----     | Santurce, P. R.       | Murphree, J. H. (S)-----         | Seneca            |
| Matthews, W. B. (2 A)-----        | Orlando, Fla.         | Murphy, J. B. (4 GS)-----        | Darlington        |
| Mauldin, J. A. (1 T)†-----        | Greenville            | Murrah, T. A. (3 GS)-----        | Union             |
| Mauldin, M. W. (1 I Ed)†-----     | Liberty               | Murray, B. D. (2 TC)-----        | St. George        |
| Mauney, R. V. (2 TC)-----         | Clover                | Myers, C. O. (3 V Ag Ed)-----    | Bowman            |
| May, D. R. (3 T)-----             | West Asheville, N. C. | Myers, J. B. (2 V Ag Ed)-----    | Orangeburg        |
| Maybin, A. H. (2 V Ag Ed)-----    | Pomaria               | Myers, J. H. (3 CE)-----         | Seneca            |
| Maynard, B. A. (2 A)-----         | Florence              | Myers, R. D. (1 E)†-----         | Orangeburg        |
| Mays, H. B. (3 GS)-----           | Fair Play             | Nalley, A. C. (2 T)-----         | Easley            |
| Mazinski, R. T. (3 CE)-----       | Jersey City, N. J.    | Nally, E. E. (1 V Ag Ed)†-----   | Easley            |
| Mazo, Earl (3 GS)-----            | Charleston            | Nance, P. M. (2 EE)-----         | Anderson          |
| Meares, J. F. (1 A)†-----         | Nichols               | Neely, H. A. (1 E)†-----         | Wellford          |
| Meeks, C. D. (1 E)†-----          | Anderson              | Neil, J. M. (2 T)-----           | Rock Hill         |
| Mellette, E. B. (3 EE)-----       | Sharon                | Nelson, H. N. (2 T)-----         | Charleston        |
| Mellette, R. D. (1 E)†-----       | Sumter                | Nelson, P. H. (3 ME)-----        | Maplewood, N. J.  |
| Merritt, H. N. (2 V Ag Ed)-----   | Lake City             | Nettles, E. E. (1 E)†-----       | Greenville        |
| Merritt, W. E. (1 GS)†-----       | Augusta, Ga.          | Nettles, R. L. (1 E)†-----       | Hartsville        |
| Meyers, A. L. (1 E)†-----         | Florence              | Nettles, W. B. (1 V Ag Ed)†----- | Walterboro        |
| Milam, C. F. (1 A)†-----          | Mountville            | Neuffer, A. M. (1 GS)†-----      | Abbeville         |
| Miles, F. S. (2 V Ag Ed)-----     | Pendleton             | Neville, McCurry (2 GS)-----     | Walhalla          |
| Miley, C. C. (4 Hort)-----        | Brunson               | Newell, J. C. (2 ME)-----        | Hemingway         |
|                                   |                       | Newman, B. F. (4 I Ed)-----      | McBee             |

| Name and Course               | Address              | Name and Course                  | Address              |
|-------------------------------|----------------------|----------------------------------|----------------------|
| Newman, G. M. (4 GS)-----     | Charlotte, N. C.     | Pelham, W. E. (2 C)-----         | Greenville           |
| Newton, C. G. (3 V Ag Ed)---  | Myrtle Beach         | Pendarvis, A. H. (1 GS)†--       | Harleyville          |
| Newton, Paul (3 I Ed)-----    | Central              | Pender, M. T. (2 A)-----         | Williston            |
| Nexsen, S. M. (1 A)†-----     | Kingstree            | Penney, J. T. (1 T)†-----        | Charleston           |
| Nichols, C. W. (2 V Ag Ed)--- | Ninety Six           | Pennington, C. W. (4 V Ag Ed)--- | Columbia             |
| Nichols, M. M. (4 C)-----     | Columbia             | Perez, E. F. (4 ME)-----         | Santo Domingo, R. D. |
| Nichols, P. W. (4 V Ag Ed)--- | Saluda               | Pericola, R. A. (2 GS)---        | Charleston           |
| Nicholson, W. S. (4 T)†-----  | Union                | Perna, F. J. (3 CE)-----         | Riverside, Conn.     |
| Nickles, J. B. (4 GS)-----    | Hodges               | Perrone, A. J. (1 E)†-----       | San Juan, P. R.      |
| Nickles, L. H. (1 E)†-----    | Donalds              | Perry, B. F. (2 A)-----          | Simpsonville         |
| Nickles, W. B. (2 A)-----     | Hodges               | Perry, C. G. (2 Ch Engr)---      | Florence             |
| Nilson, H. A. (3 Ar)-----     | Walterboro           | Perry, R. A. (1 A)†-----         | Gresham              |
| Nims, J. W. (1 E)†-----       | Lancaster            | Perry, R. E. (1 GS)†-----        | Savannah, Ga.        |
| Northrup, W. B. (4 I Ed)---   | Springfield          | Peterson, T. E. (2 T)-----       | Spartanburg          |
| Norton, E. R. (1 E)†-----     | Conway               | Pettigrew, J. C. (1 A)-----      | Hodges               |
| Norton, J. A. (1 E)†-----     | Conway               | Petty, D. M. (1 E)†-----         | Bethlehem, Pa.       |
| Nunnery, E. W. (1 V Ag Ed)†-- | Great Falls          | Phillips, J. V. (2 CE)-----      | Gaffney              |
| Oates, W. J. (3 Ag Engr)---   | Chester              | Phillips, S. F. (1 A)†-----      | Lancaster            |
| O'Brien, G. J. (1 Ar)†-----   | Columbia             | Pickens, N. D. (1 C)†-----       | Seneca               |
| O'Dell, D. G. (1 C)†-----     | Spartanburg          | Pickens, R. E. L. (1 T)†---      | Greenwood            |
| O'Driscoll, W. C. (3 EE)†---  | Charleston           | Pickens, R. G. (1 E)†-----       | Westminster, Md.     |
| Ogle, J. D. (1 E)†-----       | Sevierville, Tenn.   | Pike, W. W. (1 GS)†-----         | Calhoun              |
| Okurowski, W. B. (2 GS)---    | Arlington, N. J.     | Pinson, W. C. (1 I Ed)†---       | Greenwood            |
| O'Neal, F. W. (4 Hort)-----   | Anderson             | Pitchford, C. W. (2 CE)---       | Walhalla             |
| O'Neal, J. B. (2 GS)-----     | Fairfax              | Pittard, L. Y. (1 GS)†-----      | Monticello, Ga.      |
| O'Neal, S. C. (2 A)-----      | Fairfax              | Pitts, J. J. (2 A)-----          | Newberry             |
| Oricko, M. A. (2 CE)-----     | Bethlehem, Pa.       | Pitts, J. W. (1 GS)†-----        | Saluda               |
| Orr, J. B. (1 E)†-----        | Hartsville           | Pitts, W. R. (2 EE)-----         | Clinton              |
| Orr, J. L. (3 T)-----         | Anderson             | Planck, C. G. (3 ME)-----        | Charleston           |
| Osborne, J. H. (2 CE)-----    | Hardeeville          | Platt, J. B. (1 E)†-----         | Marion               |
| O'Shields, W. R. (2 T)-----   | Seneca               | Platt, J. M. (2 TC)-----         | Wedgfield            |
| Osteen, R. T. (2 TC)-----     | Greenville           | Plowden, W. M. (3 ME)---         | Greenville           |
| Oswald, H. C. (3 I Ed)---     | Lexington            | Plummer, J. M. (1 GS)†---        | East Gadsden, Ala.   |
| Ouzts, W. D. (1 E)†-----      | Scranton             | Plunkett, E. L. (2 EE)†---       | Fort Moultrie        |
| Owen, S. E. (2 T)-----        | Batesburg            | Poe, W. N. (1 E)†-----           | Greenville           |
| Owen, W. C. (3 V Ag Ed)---    | Central              | Poole, C. B. (2 ME)-----         | Gaffney              |
| Owens, W. O. (2 EE)-----      | St. George           | Poole, L. H. (1 T)†-----         | Gaffney              |
| Pace, J. E. (2 V Ag Ed)---    | Gresham              | Poore, F. J. (2 TIE)-----        | Ware Shoals          |
| Padgett, W. P. (1 E)†-----    | Richburg             | Pope, C. J. (2 T)-----           | Charleston           |
| Padgett, C. A. (3 Ch Engr)--- | Panama City, Fla.    | Pope, D. T. (4 Ag Engr)---       | Edisto Island        |
| Padgett, E. M. (1 E)†-----    | Tavares, Fla.        | Posey, W. W. (3 T)-----          | Spartanburg          |
| Padgett, W. H. (1 GS)†-----   | Columbia             | Potter, C. L. (2 Ar)-----        | Tucapau              |
| Padgette, C. D. (2 C)-----    | Saluda               | Potts, J. M. (3 V Ag Ed)†--      | Young Harris, Ga.    |
| Page, N. R. (4 C)-----        | Lake View            | Powers, J. T. (2 Ar)-----        | Summerville          |
| Painter, H. L. (2 V Ag Ed)--- | Chesnee              | Powers, M. R. (4 Ag Engr)---     | Marion               |
| Palles, M. D. (1 GS)†-----    | Florence             | Prause, W. K. (4 ME)-----        | Charleston           |
| Palmer, G. E. (2 GS)-----     | Allendale            | Pregnall, A. H. (3 CE)---        | Charleston           |
| Palmer, J. B. (4 AH)-----     | Sumter               | Prentiss, W. O. (2 A)-----       | McClellanville       |
| Palmer, N. H. (1 Ch Engr)†--  | Ridgeway             | Price, J. E. (1 V Ag Ed)†--      | Wolfton              |
| Park, G. B. (2 A)-----        | Greenwood            | Price, T. G. (1 E)†-----         | Praise, Ky.          |
| Park, W. B. (2 EE)-----       | Winston-Salem, N. C. | Price, V. L. (3 GS)---           | Walterboro           |
| Parker, H. B. (1 T)†-----     | Greenwood            | Prichard, H. D. (2 Ag Engr)---   | Westminster          |
| Parker, H. C. (4 I Ed)---     | Crocketville         | Prince, C. W. (4 V Ag Ed)---     | Six Mile             |
| Parker, J. A. (1 E)†-----     | Hartsville           | Pritchler, J. R. (4 V Ag Ed)---  | Holly Hill           |
| Parker, J. R. (1 Ag Engr)†--- | Seneca               | Privette, R. V. (1 A)†-----      | Lake View            |
| Parker, T. M. (1 E)†-----     | Sumter               | Propst, M. C. (3 Ch Engr)---     | Charlotte, N. C.     |
| Parks, J. B. (2 EE)-----      | Fountain Inn         | Propst, R. C. (2 Ch Engr)---     | Aiken                |
| Parnell, S. M. (1 A)†-----    | Timmons ville        | Prosser, L. M. (1 Ar)†---        | Kingstree            |
| Parrish, B. C. (2 T)-----     | Easley               | Pruitt, L. G. (1 T)†-----        | Anderson             |
| Parrish, J. W. (3 T)-----     | Clover               | Pruitt, S. H. (2 V Ag Ed)---     | Anderson             |
| Parrott, D. L. (3 Ar)-----    | Central              | Pugh, W. E. (3 D)-----           | Kingstree            |
| Pasley, J. H. (2 T)-----      | Alexander City, Ala. | Putnam, H. D. (2 T)-----         | Cherryville, N. C.   |
| Pate, Elilee (2 Ag Engr)---   | Camden               | Quantz, W. P. (3 Ch Engr)---     | Timmons ville        |
| Patterson, S. P. (4 TC)---    | Seneca               | Quinn, J. W. (1 T)†-----         | St. Matthews         |
| Pauling, B. M. (2 EE)-----    | St. Matthews         | Rabb, J. M. (1 E)†-----          | Greenville           |
| Payne, J. E. (3 T)-----       | Piedmont             | Rabinowitz, Morton (3 GS)---     | Allendale            |
| Pearce, R. R. (2 GS)-----     | Columbia             | Rabon, W. D. (1 S)†-----         | Daytona Beach, Fla.  |
| Pearman, J. N. (2 ME)-----    | Honea Path           | Radcliffe, J. H. (4 T)-----      | Aiken                |
| Pearson, B. F. (4 T)-----     | Savannah, Ga.        | Ragsdale, W. J. (3 ME)---        | Easley               |
| Pearson, R. L. (3 EE)-----    | Wellford             | Rain, F. M. (1 E)†-----          | Florence             |
| Peebles, F. E. (4 V Ag Ed)--- | Camden               | Rain, W. J. (1 E)-----           | Florence             |
| Peek, D. H. (1 A)†-----       | Six Mile             | Rainey, C. W. (4 V Ag Ed)---     | Starr                |
| Peeling, B. A. (4 Hort)-----  | Harrisburg, Pa.      | Rainey, J. H. (1 A)†-----        | Sharon               |
|                               |                      | Rainville, H. B. (2 TC)---       | Spartanburg          |
|                               |                      | Ramsey, M. H. (2 T)-----         | Anderson             |

| Name and Course                  | Address            | Name and Course                 | Address            |
|----------------------------------|--------------------|---------------------------------|--------------------|
| Randall, R. D. (1 E)†            | Rock Hill          | Roles, A. W. (1 E)†             | Williamson, W. Va. |
| Rankin, G. D. (1 V Ag Ed)†       | Saluda             | Roof, R. C. (1 E)†              | Columbia           |
| Rankin, J. A. (2 V Ag Ed)        | Allsbrook          | Roper, D. B. (3 TC)             | Laurens            |
| Rankin, J. J. (2 A)              | Tamassee           | Roper, E. R. (3 TC)             | Spartanburg        |
| Rankin, J. T. (2 EE)             | Greenville         | Roper, F. F. (2 V Ag Ed)        | Pickens            |
| Rast, H. J. (1 A)†               | Johns Island       | Rosenkrans, D. B. (2 GS)        | Clemson            |
| Rast, J. M. (1 A)†               | Elloree            | Ross, D. J. (2 T)               | West Columbia      |
| Ratchliffe, N. B. (1 E)†         | Bethune            | Ross, E. A. (2 T)               | Garnett            |
| Rawl, F. L. (4 V Ag Ed)          | Lykesland          | Ross, George (2 Ar)             | Greenville         |
| Rawl, J. L. (1 Ag Engr)†         | Lexington          | Ross, H. J. (3 V Ag Ed)         | Summerton          |
| Rawls, L. T. (2 Ar)              | Columbia           | Rouse, W. A. (4 D)              | Luray              |
| Ray, A. B. (1 C)†                | Greenville         | Rozier, W. R. (1 Ag Engr)†      | Cassatt            |
| Raynor, B. E. (1 E)†             | West Columbia      | Rucker, R. J. (1 Ag Engr)†      | St. Matthews       |
| Raynor, H. A. (4 C)              | Greenville         | Rumph, W. P. (1 GS)†            | Charleston         |
| Rea, G. H. (3 CE)                | Bethlehem, Pa.     | Rumsey, A. H. (1 Ch Engr)†      | Greenville         |
| Reagan, R. P. (3 CE)†            | Weaverville, N. C. | Rushing, B. T. (3 T)            | Estill             |
| Reaves, A. L. (2 EE)             | Bishopville        | Rutland, L. E. (2 V Ag Ed)      | Batesburg          |
| Redfern, I. C. (2 V Ag Ed)       | Chesterfield       | Rutledge, F. A. (2 CE)          | Charleston         |
| Redfern, R. B. (2 V Ag Ed)       | Mt. Croghan        | Rutledge, T. B. (2 EE)          | Charleston         |
| Reece, J. I. (1 V Ag Ed)†        | Pickens            | Safy, G. J. (2 CE)              | Greenville         |
| Reeder, H. O. (1 Ed)†            | Kannapolis, N. C.  | Salley, H. G. (4 T)             | Buffalo            |
| Reid, G. F. (2 EE)               | Gaffney            | Salley, R. G. (2 Ag Engr)       | Orangeburg         |
| Reid, S. F. (3 AH)               | Fort Motte         | Salley, W. B. (2 I Ed)          | Orangeburg         |
| Rembert, T. H. (1 A)†            | Bishopville        | Salvo, G. C. (4 Hort)           | Charleston         |
| Rentz, L. B. (1 E)†              | Clemson            | Sams, B. B. (1 E)†              | Mt. Pleasant       |
| Rex, G. L. (3 ME)                | Greenville         | Sanders, A. W. (3 Ch Engr)      | Savannah, Ga.      |
| Reynolds, A. C. (1 V Ag Ed)†     | Chesnee            | Sanders, F. W. (2 T)            | Camden             |
| Rhodes, A. P. (2 EE)             | Walhalla           | Sanders, H. W. (1 Ch Engr)†     | Laurens            |
| Rhodes, L. M. (4 D)              | Darlington         | Sanders, J. R. (4 Agr)          | Anderson           |
| Rhodes, T. M. (2 V Ag Ed)        | Estill             | Satcher, J. A. (1 A)†           | Ward               |
| Rhodes, W. G. (3 ME)             | Savannah, Ga.      | Scarborough, F. B. (1 V Ag Ed)† | Bishopville        |
| Rhodes, W. T. (2 TC)             | Mayesville         | Scarborough, F. H. (4 Ag Engr)  | Bishopville        |
| Rhyne, H. S. (1 E)†              | Fort Mill          | Scarborough, R. W. (3 ME)       | Buffalo            |
| Rhyne, W. A. (3 T)               | Greenville         | Schmidt, J. E. (3 GS)           | Clemson            |
| Richard, Leonard (1 E)†          | Georgetown         | Schroder, F. E. (1 Ar)†         | Cranford, N. J.    |
| Richards, J. G. (1 Ar)†          | Camden             | Scott, B. E. (4 Ag Engr)        | Spartanburg        |
| Richardson, J. H. (2 CE)         | Georgetown         | Scott, R. A. (1 E)              | Biddeford, Me.     |
| Richardson, J. L. (1 T)†         | Due West           | Scott, T. A. (1 V Ag Ed)†       | Honea Path         |
| Richardson, J. O. W. (3 V Ag Ed) | Marion             | Seabrook, P. D. (2 A)           | Johns Island       |
| Richardson, T. R. (1 A)†         | Barnwell           | Seabrook, W. C. (4 EE)          | Hazleton, Pa.      |
| Richardson, Thomas (3 ME)        | Maplewood, N. J.   | Sedberry, B. R. (1 E)†          | Hartsville         |
| Richbourg, W. L. (2 ME)          | Liberty            | Segars, A. L. (2 A)             | Hartsville         |
| Rickenbaker, M. W. (2 ME)        | Summerton          | Segars, R. B. (1 T)†            | Oswego             |
| Riddick, A. T. (2 EE)            | Florence           | Seigler, J. P. (1 E)†           | Starr              |
| Riddick, P. A. (2 V Ag Ed)       | Marion             | Sellers, A. R. (2 EE)           | Florence           |
| Riddick, W. R. (1 E)†            | Greenwood          | Sells, C. K. (3 T)              | Charleston         |
| Riddle, I. V. (1 S)†             | Williamston        | Senn, T. A. (1 E)†              | Laurens            |
| Riddle, J. T. (2 GS)             | Piedmont           | Senn, T. L. (4 Hort)            | Newberry           |
| Riley, J. A. (1 A)†              | Columbia           | Settle, H. H. (2 A)             | Inman              |
| Rion, A. H. (2 GS)               | Columbia           | Sexton, J. D. (1 E)†            | Laurens            |
| Rivenbark, R. W. (4 GS)          | Marion             | Seyle, F. W. (1 E)†             | Savannah, Ga.      |
| Rivers, P. F. (3 CE)             | Aiken              | Shaffer, E. T. (2 CE)           | Walterboro         |
| Robbins, J. D. (1 T)†            | Chester            | Sharp, J. D. (2 A)              | Anderson           |
| Robbins, J. E. (1 T)†            | Greenville         | Sharpe, R. G. (3 T)             | Abbeville          |
| Robinson, D. H. (1 CE)           | Chester            | Sharpe, W. B. (3 C)             | Orangeburg         |
| Robinson, H. H. (2 T)            | Union              | Shealy, C. D. (3 I Ed)          | Prosperity         |
| Robinson, H. W. (2 A)            | St. Matthews       | Shealy, J. L. (4 Agr)           | Batesburg          |
| Robinson, J. E. (3 EE)           | Florence           | Shealy, M. C. (3 Agr)           | Batesburg          |
| Robinson, P. B. (2 A)            | St. Matthews       | Shealy, R. H. (1 E)†            | Carlisle           |
| Robinson, W. A. (1 E)†           | Greer              | Shealy, W. L. (3 Ch Engr)       | Batesburg          |
| Rochester, Steve (1 A)†          | Salem              | Shell, V. M. (4 Ar)             | Arden, N. C.       |
| Rodgers, J. R. (2 T)             | Taylors            | Shelley, R. C. (3 Agr)          | Marion             |
| Rodman, E. J. (2 Ag Engr)        | Rodman             | Shelton, T. B. (1 E)†           | Walhalla           |
| Roe, J. T. (1 T)†                | Travelers Rest     | Shepherd, E. W. (4 GS)          | Savannah, Ga.      |
| Rogers, D. C. (1 A)†             | Pelzer             | Sherard, J. H. (1 GS)†          | Abbeville          |
| Rogers, D. H. (2 A)              | Blenheim           | Sherman, J. T. (1 V Ag Ed)†     | Easley             |
| Rogers, F. E. (2 Ag Engr)        | Darlington         | Shirley, G. E. (2 CE)           | Anderson           |
| Rogers, G. L. (1 A)†             | Marion             | Shirley, J. T. (2 EE)           | Anderson           |
| Rogers, Gaines Madison (1 GS)†   | Seneca             | Shirley, James A. (2 EE)        | Westminster        |
| Rogers, George McCall (1 I Ed)†  | Williston          | Shirley, Joe A. (3 TC)          | Bath               |
| Rogers, J. R. (3 ME)             | Latta              | Shirley, LeRoy (2 Ag Engr)      | Anderson           |
| Rogers, J. S. (1 E)†             | Conway             | Shirley, W. K. (1 T)†           | Belton             |
| Rogers, L. T. (2 Ch Engr)        | Dillon             | Shiver, W. B. (1 V Ag Ed)†      | Eustis, Fla.       |
| Rogers, S. S. (1 A)†             | Blenheim           | Shuford, P. H. (1 I Ed)†        | Lincolnton, N. C.  |
|                                  |                    | Shuler, Glenn (2 A)             | St. Matthews       |



| Name and Course              | Address           |
|------------------------------|-------------------|
| Shuler, H. A. (1 E)†         | Orangeburg        |
| Shurtleff, S. J. (2 T)E      | Fairhaven, Mass.  |
| Simkins, J. E. (3 T)         | Columbia          |
| Simmons, C. L. (2 Ch Engr)   | Spartanburg       |
| Simmons, M. F. (2 TC)        | Greer             |
| Simms, W. G. (1 T)           | Summerton         |
| Simpson, A. T. (3 V Ag Ed)   | Blaney            |
| Simpson, D. N. (2 V Ag Ed)   | Iva               |
| Simpson, H. V. (2 TC)        | Anderson          |
| Simpson, J. F. (1 A)†        | Chester           |
| Simpson, J. H. (1 E)†        | Whitmire          |
| Simpson, J. L. (2 A)         | Iva               |
| Simpson, R. A. (1 Ag Engr)†  | Chester           |
| Sims, C. M. (1 GS)†          | Cowpens           |
| Sims, J. J. (2 Ch Engr)      | Easley            |
| Sims, R. Y. (1 E)†           | Memphis, Tenn.    |
| Singletary, J. B. (2 A)      | Coward            |
| Sistare, F. W. (1 E)†        | Lancaster         |
| Skardon, J. W. (1 GS)†       | Walterboro        |
| Skardon, S. L. (4 GS)        | Walterboro        |
| Sloan, D. H. (1 A)†          | Smithboro         |
| Sloan, R. A. (4 Agr)         | Marion            |
| Small, W. O. (1 V Ag Ed)†    | Heath Springs     |
| Smart, W. W. G. (1 C)†       | Shelby, N. C.     |
| Smith, A. W. (4 T)           | Anderson          |
| Smith, C. E. (2 GS)          | Ridgeland         |
| Smith, D. T. (3 Ch Engr)     | Abbeville         |
| Smith, D. W. (2 EE)          | Williston         |
| Smith, E. H. (2 EE)          | Johnston          |
| Smith, E. N. (1 Ch Engr)†    | Greenville        |
| Smith, G. L. (3 GS)          | Springfield       |
| Smith, H. D. (2 WD)          | Greenville        |
| Smith, H. W. (1 E)†          | Pageland          |
| Smith, J. G. (4 T)           | Clearwater        |
| Smith, J. K. (4 TC)          | Seneca            |
| Smith, L. B. (3 GS)          | Rainelle, W. Va.  |
| Smith, L. C. (3 T)           | Greenville        |
| Smith, L. G. (1 E)†          | Kannapolis, N. C. |
| Smith, M. T. (3 EE)          | Walhalla          |
| Smith, P. F. (2 Ch Engr)     | Summerville       |
| Smith, R. A. (2 V Ag Ed)     | Fair Play         |
| Smith, R. B. (1 E)†          | Charleston        |
| Smith, R. D. (2 V Ag Ed)     | Bowman            |
| Smith, T. L. (3 GS)          | Charleston        |
| Smith, W. E. (2 Ed)          | Salem             |
| Smith, W. H. (2 Ch Engr)     | New Holland, Ga.  |
| Smith, W. T. (2 V Ag Ed)     | Winnsboro         |
| Smoak, R. A. (2 EE)          | Branchville       |
| Snead, A. J. (2 CE)          | Greenville        |
| Snell, A. H. (4 Hort)        | Elloroe           |
| Snipes, G. L. (3 V Ag Ed)    | Seneca            |
| Somers, H. L. (3 V Ag Ed)†   | Ivy, N. C.        |
| Somerville, A. W. (1 E)†     | McConnellsville   |
| Sosnowski, J. R. (1 C)†      | Johns Island      |
| Sottile, S. V. (3 CE)        | Charleston        |
| Sottile, V. N. (1 E)†        | Charleston        |
| Southerlin, J. R. (2 CE)     | Greenville        |
| Sparks, L. M. (2 A)          | Gaffney           |
| Spearman, F. A. (1 C)†       | Williamston       |
| Spears, J. C. (1 Ch Engr)†   | Jonesville        |
| Speissegger, C. F. (2 C)     | Charleston        |
| Spire, C. E. (3 WD)          | Hartsville        |
| Spivey, E. P. (1 V Ag Ed)†   | Loris             |
| Spratt, J. L. (1 GS)         | York              |
| Sprouse, M. N. (1 E)†        | Anderson          |
| Stafford, G. H. (2 ME)       | Latta             |
| Staley, G. C. (4 ME)         | Gray Court        |
| Stallworth, J. M. (3 GS)     | St. Matthews      |
| Stanfield, T. F. (4 GS)      | Cordova           |
| Stanford, G. W. (4 CE)       | Greensboro, N. C. |
| Stanford, M. C. (2 GS)       | Atlanta, Ga.      |
| Stansill, J. T. (1 V Ag Ed)† | Eastover          |
| Starnes, J. O. (1 A)†        | Lancaster         |
| Starr, D. L. (2 GS)          | Walterboro        |
| Steady, H. D. (1 E)†         | Bamberg           |

| Name and Course               | Address          |
|-------------------------------|------------------|
| Steele, E. D. (1 V Ag Ed)†    | Six Mile         |
| Steele, R. N. (1 T)†          | Fairhaven, Mass. |
| Sterghos, J. D. (2 EE)        | Greenwood        |
| Stevenson, J. H. (2 TC)       | Marion           |
| Stevenson, T. F. (1 GS)†      | Columbia         |
| Stewart, E. R. (3 V Ag Ed)    | Fountain Inn     |
| Stewart, M. A. (1 TC)†        | Rock Hill        |
| Stewart, T. H. (2 V Ag Ed)    | Six Mile         |
| Stokely, D. R. (S)            | Clemson          |
| Stokes, C. A. (1 E)†          | Greer            |
| Stokes, F. H. (2 V Ag Ed)     | Darlington       |
| Stokes, W. H. (4 V Ag Ed)     | Greer            |
| Stone, L. T. (1 V Ag Ed)†     | Marion           |
| Stone, R. L. (4 GS)           | Central          |
| Stone, W. S. (1 T)            | Greenville       |
| Stoudemire, G. A. (3 V Ag Ed) | Little Mountain  |
| Stover, E. L. (1 C)†          | Winnsboro        |
| Strauss, E. M. (1 E)†         | Newberry         |
| Strawhorn, Harold (1 E)†      | Bradley          |
| Stribling, F. D. (1 A)†       | Westminster      |
| Stribling, J. F. (2 Ag Engr)  | Westminster      |
| Stribling, S. P. (3 V Ag Ed)  | Westminster      |
| Stribling, T. E. (1 T)†       | Habersham, Ga.   |
| Strickland, J. M. (3 TC)†     | Starr            |
| Strickland, O. K. (3 V Ag Ed) | Nichols          |
| Stricklin, T. S. (2 ME)       | Richburg         |
| Stroud, W. C. (3 V Ag Ed)†    | Richburg         |
| Stubblefield, Hord (3 Ar)     | Greenville       |
| Sturgis, E. C. (4 Ent)        | Rock Hill        |
| Sturgis, H. L. (1 T)†         | Rock Hill        |
| Styron, W. T. (2 ME)          | Columbia         |
| Sullivan, J. E. (4 T)         | Anderson         |
| Sullivan, J. W. (2 T)         | Lodge            |
| Sullivan, O. E. (3 T)         | Gaffney          |
| Sullivan, R. J. (2 GS)        | Anderson         |
| Sullivan, R. P. (1 T)†        | Gaffney          |
| Summerbell, W. E. (4 ME)      | Charleston       |
| Summers, C. B. (3 GS)         | Columbia         |
| Sutton, A. D. (3 CE)          | Fort Mill        |
| Sutton, C. B. (3 ME)          | Columbia         |
| Swearingen, J. C. (2 V Ag Ed) | Trenton          |
| Sweat, C. H. (4 V Ag Ed)      | Walterboro       |
| Sweeney, J. O. (4 EE)         | Anderson         |
| Switzer, J. E. (3 V Ag Ed)    | Roebuck          |
| Talbert, J. N. (4 T)          | Troy             |
| Talbert, T. W. (4 GS)         | Columbia         |
| Tarleton, H. J. (1 T)†        | Maplewood, N. J. |
| Tate, D. H. (1 E)†            | Rock Hill        |
| Taylor, C. B. (1 V Ag Ed)     | Nichols          |
| Taylor, J. O. (2 V Ag Ed)     | Mt. Croghan      |
| Taylor, R. H. (1 E)†          | Aspinwall, Pa.   |
| Taylor, W. L. (1 GS)†         | Columbia         |
| Templeton, W. D. (1 T)†       | Williamston      |
| Terry, J. R. (1 E)†           | Fountain Inn     |
| Terry, W. B. (4 EE)           | Cheraw           |
| Terry, W. M. (4 Ent)          | Martins          |
| Thackston, J. E. (2 ME)       | Greenville       |
| Thackston, W. H. (4 T)        | Anderson         |
| Thames, F. H. (1 Ch Engr)†    | Charleston       |
| Theodore, James (3 I Ed)      | Greenville       |
| Theodore, John A. (1 Ar)†     | Greenville       |
| Thode, F. W. (3 Hort)         | Walhalla         |
| Thomas, A. E. (1 T)†          | Georgetown       |
| Thomas, E. H. (4 T)           | Prosperity       |
| Thomas, G. G. (1 E)†          | Rock Hill        |
| Thomas, H. H. (1 S)†          | Carrollton, Ga.  |
| Thomas, H. J. (4 V Ag Ed)     | Hodges           |
| Thomas, R. C. (4 V Ag Ed)     | Lamar            |
| Thomas, R. L. (2 T)           | Spartanburg      |
| Thomason, J. E. (3 V Ag Ed)†  | Marietta         |
| Thompson, B. G. (2 ME)        | Hardeeville      |
| Thompson, C. W. (3 V Ag Ed)   | Reesville        |
| Thompson, F. A. (4 T)         | Williston        |
| Thompson, G. E. (1 Ag Engr)†  | Chesnee          |
| Thompson, J. L. (1 TC)†       | North Augusta    |



| Name and Course               | Address             | Name and Course              | Address            |
|-------------------------------|---------------------|------------------------------|--------------------|
| Thompson, J. S. (1 V Ag Ed)   | Bucksville          | Ware, E. E. (1 GS)†          | Greenville         |
| Thompson, J. W. (1 V Ag Ed)†  | Bowman              | Waring, Hampton (1 E)†       | Summerville        |
| Thompson, L. B. (1 TC)†       | North Augusta       | Warner, C. T. (3 ME)         | Greenwood          |
| Thomson, B. F. (4 GS)         | Landrum             | Warren, J. H. (2 GS)         | Charleston         |
| Thornburg, R. W. (2 ME)       | Greenville          | Washington, W. M. (1 E)†     | Honea Path         |
| Thornley, W. H. (1 Ed)        | Moncks Corner       | Waters, G. H. (3 T)          | Johnston           |
| Thornton, C. C. (3 C)         | Union               | Waters, L. E. (4 WD)         | Clemson            |
| Thrower, A. M. (1 E)†         | Ridgeville          | Watkins, M. D. (1 GS)†       | Westminster        |
| Thurman, D. R. (1 S)†         | Whiteside, Tenn.    | Watkins, M. H. (1 E)†        | Pendleton          |
| Timmerman, R. P. (2 TC)       | Vaughan             | Watson, F. M. (1 GS)†        | Griffin, Ga.       |
| Timmons, C. T. (2 T)          | Abbeville           | Watson, J. B. (1 A)†         | Anderson           |
| Tingle, A. M. (1 E)†          | Asheville, N. C.    | Watson, J. D. (4 Agr)        | Florence           |
| Tingle, W. B. (1 E)†          | Ora                 | Watson, J. E. (1 C)†         | Gaffney            |
| Tisdale, C. F. (2 A)          | Bryson City, N. C.  | Watson, J. F. (2 Ch Engr)    | Greenwood          |
| Todd, A. L. (1 T)†            | Anderson            | Watson, M. B. (1 E)†         | Greenville         |
| Todd, C. E. (1 GS)†           | Fairfax             | Watson, P. S. (4 V Ag Ed)    | Ridge Spring       |
| Todd, Roy (3 V Ag Ed)         | Loris               | Watson, R. W. (4 EE)         | Spartanburg        |
| Todd, Rudolph (1 E)†          | Loris               | Watts, J. M. (1 V Ag Ed)†    | Moncks Corner      |
| Tokunaga, R. L. (1 A)†        | Columbia            | Way, H. G. (1 A)†            | Hemingway          |
| Tomlinson, S. O. (1 V Ag Ed)† | Lynchburg           | Way, W. A. (4 EE)            | Clemson            |
| Toncray, J. H. (2 T)          | Johnson City, Tenn. | Wearn, W. C. (2 EE)          | Newberry           |
| Townsend, C. R. (2 A)         | Blenheim            | Weaver, A. E. (2 ME)         | Jacksonville, Fla. |
| Townsend, J. R. (4 V Ag Ed)   | Blenheim            | Webb, B. L. (3 CE)           | Beaufort           |
| Trammell, W. V. (2 Ch Engr)   | Anderson            | Webb, G. R. (2 CE)           | Saluda             |
| Traylor, H. C. (1 GS)†        | Winnboro            | Webb, H. N. (3 Ar)           | Anderson           |
| Traywick, H. V. (4 I Ed)      | Cameron             | Webb, H. W. (2 CE)           | Saluda             |
| Trexler, B. D. (2 Ed)         | Greenville          | Webster, F. S. (1 Ch Engr)†  | Greenville         |
| Trimmier, J. D. (1 T)†        | Inman               | Webster, S. R. (2 EE)        | Mullins            |
| Triplett, C. H. (2 Ch Engr)   | Chester             | Weinheimer, R. J. (1 E)†     | Erie, Pa.          |
| Tripp, J. H. (1 TC)†          | Belton              | Welch, F. R. (1 E)†          | Charleston         |
| Trobaugh, A. K. (2 ME)        | Brunswick, Ga.      | Welch, R. W. (2 ME)          | Kingstree          |
| Trobaugh, H. E. (2 GS)        | Brunswick, Ga.      | Wells, F. E. (3 V Ag Ed)     | Greenwood          |
| Troy, H. P. (4 GS)            | Ellore              | Wentzel, D. B. (2 EE)        | Clemson            |
| Truesdale, J. M. (2 V Ag Ed)  | Kershaw             | West, E. C. (3 V Ag Ed)      | Conway             |
| Truett, E. C. (2 V Ag Ed)†    | Timmons             | West, F. T. (1 E)†           | Marion             |
| Truluck, J. W. (3 V Ag Ed)    | Coward              | West, H. D. (1 A)†           | Bowman             |
| Tuck, E. S. (1 S)†            | Spartanburg         | West, I. W. (1 Ch Engr)†     | Gresham            |
| Tucker, W. E. (2 GS)†         | Greenville          | West, T. P. (3 T)            | Greenville         |
| Tupper, B. A. (1 E)†          | Rembert             | Whall, R. F. (1 Ch Engr)†    | San Juan, P. R.    |
| Turner, C. A. (2 T)           | Fort Mill           | Wham, G. S. (2 TC)           | Mountville         |
| Turner, C. G. (1 E)†          | Homestead, Fla.     | Wheeler, C. D. (2 EE)†       | Augusta, Ga.       |
| Turner, G. M. (3 TC)          | Greenville          | Wheeler, G. A. (2 A)         | Spartanburg        |
| Turner, H. G. (1 A)†          | Travelers Rest      | Wheeler, G. C. (2 A)         | Saluda             |
| Turner, N. L. (3 Hort)        | White Hall          | Wheeler, R. F. (2 V Ag Ed)   | Batesburg          |
| Turner, W. C. (2 ME)          | Piedmont            | Whisenant, J. E. (2 EE)      | Spartanburg        |
| Upchurch, H. B. (2 T)         | Athens, Ga.         | Whisnant, C. L. (3 TC)       | Charlotte, N. C.   |
| Valentine, H. P. (1 T)†       | Washington, D. C.   | White, E. T. (1 E)†          | Belton             |
| Vann, L. W. (1 A)†            | Trenton             | White, J. R. (1 A)†          | Sumter             |
| Vansant, V. W. (3 V Ag Ed)†   | Ward                | White, R. J. (1 E)†          | Winnboro           |
| Van Wyck, W. O. (3 GS)        | Covina, Cal.        | White, T. P. (1 Ch Engr)†    | Gough              |
| Varn, A. H. (1 E)             | Charleston          | White, W. C. (1 E)†          | Rock Hill          |
| Vassey, H. M. (3 V Ag Ed)     | Chesnee             | Whitehead, H. C. (3 T)       | Graniteville       |
| Vaughan, C. L. (4 Ar)         | Clinton             | Whitehead, J. B. (2 EE)      | Graniteville       |
| Vereen, C. M. (1 V Ag Ed)†    | Latta               | Whitesell, C. H. (2 GS)      | Blacksburg         |
| Vereen, L. C. (2 CE)          | Latta               | Whitlock, F. M. (4 V Ag Ed)  | Easley             |
| Vernon, R. H. (1 V Ag Ed)†    | Travelers Rest      | Whitmore, A. P. (4 EE)       | Pickens            |
| Vess, M. W. (1 S)†            | Eton, Ga.           | Whitney, J. T. (4 I Ed)      | Union              |
| Vicaria, Jorge (3 T)          | Clemson             | Whitten, M. W. (1 V Ag Ed)†  | Salem              |
| Vickery, J. B. (2 V Ag Ed)    | Central             | Wiggins, R. C. (1 T)†        | Hopkins            |
| Vickery, V. V. (4 V Ag Ed)    | Central             | Wingington, W. H. (2 EE)     | Anderson           |
| Vincent, C. A. (3 Ag Ec)      | Lynchburg           | Wiles, W. C. (4 Ed)          | Columbia           |
| VonHollen, C. H. (1 E)†       | Greenville          | Wilks, J. L. (4 Ch Engr)     | Charleston         |
| VonHollen, J. M. (1 E)        | Greenville          | Williams, A. V. (3 GS)       | Charleston         |
| Von Weller, G. S. (2 GS)      | Albany, Ga.         | Williams, G. E. (1 T)†       | Greenville         |
| Wade, W. B. (3 GS)            | Clinton             | Williams, G. L. (1 V Ag Ed)† | Neeses             |
| Wakefield, D. C. (3 T)†       | Anderson            | Williams, G. M. (4 C)        | Charleston         |
| Wakefield, J. B. (3 Agr)      | Iva                 | Williams, G. P. (1 E)†       | Kingstree          |
| Walden, A. R. (1 A)†          | Landrum             | Williams, H. C. (1 C)†       | Seneca             |
| Walker, M. E. (2 A)           | Rock Hill           | Williams, J. C. (2 A)        | Norway             |
| Walker, R. H. (2 EE)          | Appleton            | Williams, L. A. (1 Ch Engr)† | Olar               |
| Wallace, J. R. (1 E)†         | Central             | Williams, S. B. (3 V Ag Ed)  | Greer              |
| Wallace, J. W. (2 V Ag Ed)    | Hamer               | Williams, W. C. (1 E)        | Swansea            |
| Wallis, G. C. (1 T)†          | Waycross, Ga.       | Williamson, B. P. (1 E)†     | York               |
| Wannamaker, R. C. (3 Agr)     | St. Matthews        | Williamson, L. A. (4 ME)     | Ridgewood, N. J.   |
| Ward, H. E. (3 Ag Engr)       | Darlington          | Williamson, S. A. (2 I Ed)   | Aiken              |

| Name and Course              | Address          | Name and Course                  | Address             |
|------------------------------|------------------|----------------------------------|---------------------|
| Willimon, E. L. (1 Ar)†      | Florence         | Woodward, Joe E. (2 EE)          | Greenville          |
| Willis, D. J. (3 Ed)         | Travelers Rest   | Woodward, L. J. (3 EE)           | Anderson            |
| Willis, J. W. (2 ME)         | Lynchburg        | Woody, R. E. (2 ME)              | Charleston          |
| Willis, M. D. (4 ME)†        | Spartanburg      | Wootan, L. A. (2 A)              | Smiths Turn Out     |
| Wilson, B. R. (1 A)†         | Darlington       | Workman, W. D. (2 ME)            | Clinton             |
| Wilson, C. L. (2 V Ag Ed)    | Fort Mill        | Wray, C. V. (3 T)                | Clemson             |
| Wilson, C. P. (1 Ed)†        | Ridgeland        | Wright, C. K. (1 E)†             | Columbia            |
| Wilson, E. F. (2 EE)         | Abbeville        | Wright, C. R. (2 GS)             | Gastonia, N. C.     |
| Wilson, E. H. (2 V Ag Ed)    | Blythewood       | Wright, E. E. (1 E)†             | Sumter              |
| Wilson, H. B. (2 GS)         | Abbeville        | Wright, J. G. (1 GS)†            | Anderson            |
| Wilson, H. S. (2 EE)         | Calhoun Falls    | Wright, L. C. (4 ME)             | Columbia            |
| Wilson, J. E. (1 V Ag Ed)†   | Pendleton        | Wright, L. S. (1 E)†             | Johnston            |
| Wilson, J. L. (1 V Ag Ed)†   | Lancaster        | Wright, M. E. (3 GS)             | Fredericksburg, Va. |
| Wilson, J. M. (1 GS)†        | Charleston       | Wright, T. C. (1 V Ag Ed)†       | Ward                |
| Wilson, R. B. (1 E)†         | Piedmont         | Wyant, Y. W. (4 V Ag Ed)         | Ninety Six          |
| Wilson, T. V. (1 Ag Engr)†   | Piedmont         | Wyndham, F. E. (2 A)             | Moncks Corner       |
| Wilson, W. C. (2 A)          | Atlanta, Ga.     | Yarborough, B. H. (3 C)          | Winnboro            |
| Wily, R. R. (2 ME)           | Bethlehem, Pa.   | Yard, S. K. (2 Ch Engr)          | Seneca              |
| Winburn, J. D. (1 A)         | Hartsville       | Yeargin, B. F. (1 T)†            | Ware Shoals         |
| Winburn, R. G. (1 V Ag Ed)†  | Hartsville       | Yelton, L. M. (3 Ag Ec)          | Eastover            |
| Windham, J. M. (4 ME)        | Edisto Island    | Yonce, C. Z. (1 E)               | Edgefield           |
| Winfield, J. A. (3 ME)       | Stony Creek, Va. | Young, Edward L. (2 A)           | Timmons ville       |
| Wise, J. M. (1 Ag Engr)†     | Elko             | Young, Ernest L. (4 EE)          | Fairfax             |
| Wise, W. R. (4 EE)           | Newberry         | Young, F. G. (3 Hort & V Ag Ed)† | Hamilton, Ala.      |
| Wofford, W. G. (1 A)†        | Hartsville       | Young, H. H. (1 GS)†             | Fairfax             |
| Wolfe, J. W. (2 A)           | Orangeburg       | Young, J. G. (1 GS)†             | Florence            |
| Wolfe, R. S. (4 CE)          | Orangeburg       | Young, L. W. (1 Ar)†             | Asheville, N. C.    |
| Wood, F. A. (2 T)            | Newberry         | Young, T. B. (4 Ag Ec)           | Florence            |
| Wood, W. D. (2 A)            | Bennettsville    | Zeigler, A. E. (1 T)†            | Columbia            |
| Woodhurst, R. S. (1 Ar)†     | Abbeville        | Zeigler, C. M. (3 T)             | St. Matthews        |
| Woodruff, B. E. (1 Ch Engr)† | Darlington       | Zeigler, J. S. (2 ME)            | Florence            |
| Woods, Charles (4 ME)        | Savannah, Ga.    | Zeigler, W. B. (4 I Ed)          | Florence            |
| Woods, T. D. (3 ME)          | Fort Mill        | Zerbst, H. C. (2 A)              | Charleston          |
| Woodward, Jesse E. (2 ME)    | Conway           | Zimmerman, C. H. (1 TC)†         | St. Matthews        |

## NUMBER OF STUDENTS MAJORING IN EACH CURRICULUM

First Semester 1938-1939

| Class     | Agriculture | Agricultural Engineering | Chemistry | Architecture | Engineering (Unclassified) | Chemical Engineering | Civil Engineering | Electrical Engineering | Mechanical Engineering | General Science | Textile Engineering | Textile Chemistry and Dyeing | Weaving and Designing | Vocational Agricultural Education | Education | Industrial Education | Textile Industrial Education | Special | Enrollment by Classes |
|-----------|-------------|--------------------------|-----------|--------------|----------------------------|----------------------|-------------------|------------------------|------------------------|-----------------|---------------------|------------------------------|-----------------------|-----------------------------------|-----------|----------------------|------------------------------|---------|-----------------------|
| Senior    | 52          | 7                        | 9         | 11           |                            | 5                    | 13                | 24                     | 21                     | 42              | 33                  | 6                            | 4                     | 46                                | 2         | 12                   |                              |         | 287                   |
| Junior    | 34          | 8                        | 13        | 16           |                            | 15                   | 27                | 27                     | 36                     | 47              | 61                  | 15                           | 4                     | 62                                | 3         | 14                   |                              |         | 383                   |
| Sophomore | 96          | 20                       | 9         | 19           |                            | 26                   | 40                | 63                     | 57                     | 56              | 92                  | 27                           | 3                     | 81                                | 3         | 8                    |                              | 1       | 604                   |
| Freshman  | 114         | 27                       | 29        | 26           | 234                        | 33                   |                   |                        |                        | 87              | 98                  | 18                           |                       | 111                               | 6         | 20                   |                              | 18      | 821                   |
| Special   |             |                          |           |              |                            |                      |                   |                        |                        |                 |                     |                              |                       |                                   |           |                      |                              | 13      | 13                    |
| Totals    | 296         | 62                       | 60        | 72           | 234                        | 79                   | 80                | 114                    | 114                    | 232             | 284                 | 66                           | 11                    | 300                               | 14        | 54                   | 4                            | 32      | 2108                  |

## ENROLLMENT BY COUNTIES AND STATES

FIRST SEMESTER 1938-1939

| <i>County</i>              | <i>Total</i> | <i>State or Country</i>    | <i>Total</i> |
|----------------------------|--------------|----------------------------|--------------|
| Abbeville -----            | 33           | Alabama -----              | 4            |
| Aiken -----                | 37           | California -----           | 2            |
| Allendale -----            | 22           | Connecticut -----          | 6            |
| Anderson -----             | 137          | Cuba -----                 | 1            |
| Bamberg -----              | 13           | Delaware -----             | 1            |
| Barnwell -----             | 16           | District of Columbia ----- | 4            |
| Beaufort -----             | 16           | Florida -----              | 21           |
| Berkeley -----             | 7            | Georgia -----              | 59           |
| Calhoun -----              | 23           | Illinois -----             | 1            |
| Charleston -----           | 105          | Indiana -----              | 1            |
| Cherokee -----             | 32           | Kentucky -----             | 2            |
| Chester -----              | 32           | Maine -----                | 1            |
| Chesterfield -----         | 25           | Massachusetts -----        | 2            |
| Clarendon -----            | 18           | Minnesota -----            | 1            |
| Colleton -----             | 23           | Missouri -----             | 1            |
| Darlington -----           | 37           | New Jersey -----           | 9            |
| Dillon -----               | 25           | New York -----             | 4            |
| Dorchester -----           | 22           | North Carolina -----       | 71           |
| Edgefield -----            | 23           | Panama -----               | 1            |
| Fairfield -----            | 23           | Pennsylvania -----         | 19           |
| Florence -----             | 75           | Puerto Rico -----          | 4            |
| Georgetown -----           | 15           | Santo Domingo -----        | 1            |
| Greenville -----           | 139          | South Carolina -----       | 1866         |
| Greenwood -----            | 64           | Tennessee -----            | 15           |
| Hampton -----              | 23           | Virginia -----             | 6            |
| Horry -----                | 37           | Washington -----           | 1            |
| Jasper -----               | 10           | West Virginia -----        | 3            |
| Kershaw -----              | 27           | Wyoming -----              | 1            |
| Lancaster -----            | 19           |                            |              |
| Laurens -----              | 41           | Grand Total -----          | 2108         |
| Lee -----                  | 24           |                            |              |
| Lexington -----            | 27           |                            |              |
| Marion -----               | 32           |                            |              |
| Marlboro -----             | 20           |                            |              |
| McCormick -----            | 5            |                            |              |
| Newberry -----             | 34           |                            |              |
| Oconee -----               | 85           |                            |              |
| Orangeburg -----           | 73           |                            |              |
| Pickens -----              | 71           |                            |              |
| Richland -----             | 93           |                            |              |
| Saluda -----               | 32           |                            |              |
| Spartanburg -----          | 101          |                            |              |
| Sumter -----               | 31           |                            |              |
| Union -----                | 31           |                            |              |
| Williamsburg -----         | 29           |                            |              |
| York -----                 | 59           |                            |              |
| South Carolina Total ----- | 1866         |                            |              |

## \*SUPPLEMENTARY LIST OF STUDENTS, SECOND SEMESTER, 1938-1939

|                            |                  |                              |                    |
|----------------------------|------------------|------------------------------|--------------------|
| Badia, J. P. (1 Ar)†       | Santurce, P. R.  | Lawrence, J. M. (1 A)        | Seneca             |
| Barton, L. M. (2 EE)       | Taylors          | Lightsey, J. H. (3 A)        | Fairfax            |
| Blanton, H. P. (3 A)       | Gaffney          | McGregor, W. C. (4 GS)       | Anderson           |
| Bush, S. M. (3 TC)         | Colquitt, Ga.    | McKesson, E. L. (2 Ag Engr)† | Petersburg, Va.    |
| Carrigan, E. W. (2 GS)     | Society Hill     | McKinney, W. R. (3 Ag Engr)  | Chesnee            |
| Casserly, J. J. (1 TC)†    | Flushing, N. Y.  | Madden, J. W. (2 CE)         | Belton             |
| Derrick, F. B. (4 GS)      | Clayton, Ga.     | Monk, F. S. (1 TE)†          | Columbus, Ga.      |
| Dillard, T. W. (4 V Ag Ed) | Liberty          | Morgan, T. W. (S)            | Clemson            |
| Dunn, M. F. (1 TE)         | Chester          | Nichols, H. D. (1 A)         | White Pine, Tenn.  |
| Earnest, W. M. (1 C)†      | Atlanta, Ga.     | Outz, G. (2 V Ag Ed)         | Fair Play          |
| Evans, J. H. (2 CE)        | Bennettsville    | Reynolds, C. M. (1 V Ag Ed)† | Scotts, N. C.      |
| Fain, S. Z. (1 TE)†        | Brooklyn, N. Y.  | Robbins, I. D. (3 CE)†       | Seneca             |
| Flink, H. H. (1 Ch Engr)†  | Cos Cob, Conn.   | Rogers, J. M. (2 Ag Engr)†   | Clio               |
| Garrett, E. B. (1 A)†      | New Roads, La.   | Scott, E. B. (2 GS)          | Marion             |
| Gregory, W. W. (2 TE)      | Inman            | Snyderman, F. L. (1 TE)†     | Philadelphia, Pa.  |
| Grubb, L. G. (1 TC)†       | Salisbury, N. S. | Sosa, R. (1 Ar)†             | Santurce, P. R.    |
| Herlong, J. B. (3 V Ag Ed) | Johnston         | Stewart, E. D. (1 GS)†       | Greenville         |
| Keels, D. W. (1 GS)†       | Ridgeville       | Yearout, W. T. (1 V Ag Ed)†  | Lenoir City, Tenn. |
| Kerchmar, A. (2 C)         | Bethlehem, Pa.   |                              |                    |
| Kloman, C. (1 V Ag Ed)†    | Bellevue, Pa.    |                              |                    |
| Knox, J. B. (1 TE)         | Chester          |                              |                    |

\*Students enrolled for the second semester who were not enrolled for the first semester. In this list, students are classified according to their credits at the beginning of the second semester; new students admitted at the beginning of the second semester are indicated by a dagger (†). This list includes only those second semester students who matriculated prior to February 9, 1939.



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# THE CLEMSON AGRICULTURAL COLLEGE

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## RECORD

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THE  
CLEMSON  
AGRICULTURAL  
COLLEGE

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RECORD  
FORTY-SEVENTH YEAR

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CATALOG NUMBER  
1939—1940

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ANNOUNCEMENTS 1940-1941

1941

| JANUARY |    |    |    |    |    |    |
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| FEBRUARY |    |    |    |    |    |    |
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| APRIL |    |    |    |    |    |    |
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| JUNE |    |    |    |    |    |    |   |
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| JULY |    |    |    |    |    |    |  |
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| AUGUST |    |    |    |    |    |    |
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| SEPTEMBER |    |    |    |    |    |    |
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| OCTOBER |    |    |    |    |    |    |
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| 20      | 21 | 22 | 23 | 24 | 25 | 26 |
| 27      | 28 | 29 | 30 | 31 |    |    |

| NOVEMBER |    |    |    |    |    |    |
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| 17       | 18 | 19 | 20 | 21 | 22 | 23 |
| 24       | 25 | 26 | 27 | 28 | 29 | 30 |

| DECEMBER |    |    |    |    |    |    |
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| 15       | 16 | 17 | 18 | 19 | 20 | 21 |
| 22       | 23 | 24 | 25 | 26 | 27 | 28 |
| 29       | 30 | 31 |    |    |    |    |

| JANUARY |    |    |    |    |    |    |  |
|---------|----|----|----|----|----|----|--|
| S       | M  | T  | W  | T  | F  | S  |  |
|         |    |    | 1  | 2  | 3  | 4  |  |
| 5       | 6  | 7  | 8  | 9  | 10 | 11 |  |
| 12      | 13 | 14 | 15 | 16 | 17 | 18 |  |
| 19      | 20 | 21 | 22 | 23 | 24 | 25 |  |
| 26      | 27 | 28 | 29 | 30 | 31 |    |  |

| FEBRUARY |    |    |    |    |    |    |
|----------|----|----|----|----|----|----|
| S        | M  | T  | W  | T  | F  | S  |
|          |    |    |    |    |    | 1  |
| 2        | 3  | 4  | 5  | 6  | 7  | 8  |
| 9        | 10 | 11 | 12 | 13 | 14 | 15 |
| 16       | 17 | 18 | 19 | 20 | 21 | 22 |
| 23       | 24 | 25 | 26 | 27 | 28 |    |

| MARCH |    |    |    |    |    |    |   |
|-------|----|----|----|----|----|----|---|
| S     | M  | T  | W  | T  | F  | S  |   |
|       |    |    |    |    |    |    | 1 |
| 2     | 3  | 4  | 5  | 6  | 7  | 8  |   |
| 9     | 10 | 11 | 12 | 13 | 14 | 15 |   |
| 16    | 17 | 18 | 19 | 20 | 21 | 22 |   |
| 23    | 24 | 25 | 26 | 27 | 28 | 29 |   |
| 30    | 31 |    |    |    |    |    |   |

| APRIL |    |    |    |    |    |    |
|-------|----|----|----|----|----|----|
| S     | M  | T  | W  | T  | F  | S  |
|       |    | 1  | 2  | 3  | 4  | 5  |
| 6     | 7  | 8  | 9  | 10 | 11 | 12 |
| 13    | 14 | 15 | 16 | 17 | 18 | 19 |
| 20    | 21 | 22 | 23 | 24 | 25 | 26 |
| 27    | 28 | 29 | 30 |    |    |    |

| MAY |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|
| S   | M  | T  | W  | T  | F  | S  |
|     |    |    |    | 1  | 2  | 3  |
| 4   | 5  | 6  | 7  | 8  | 9  | 10 |
| 11  | 12 | 13 | 14 | 15 | 16 | 17 |
| 18  | 19 | 20 | 21 | 22 | 23 | 24 |
| 25  | 26 | 27 | 28 | 29 | 30 | 31 |

| JUNE |    |    |    |    |    |    |
|------|----|----|----|----|----|----|
| S    | M  | T  | W  | T  | F  | S  |
| 1    | 2  | 3  | 4  | 5  | 6  | 7  |
| 8    | 9  | 10 | 11 | 12 | 13 | 14 |
| 15   | 16 | 17 | 18 | 19 | 20 | 21 |
| 22   | 23 | 24 | 25 | 26 | 27 | 28 |
| 29   | 30 |    |    |    |    |    |

| JULY |    |    |    |    |    |    |
|------|----|----|----|----|----|----|
| S    | M  | T  | W  | T  | F  | S  |
|      |    | 1  | 2  | 3  | 4  | 5  |
| 6    | 7  | 8  | 9  | 10 | 11 | 12 |
| 13   | 14 | 15 | 16 | 17 | 18 | 19 |
| 20   | 21 | 22 | 23 | 24 | 25 | 26 |
| 27   | 28 | 29 | 30 | 31 |    |    |

| AUGUST |    |    |    |    |    |    |
|--------|----|----|----|----|----|----|
| S      | M  | T  | W  | T  | F  | S  |
|        |    |    |    |    | 1  | 2  |
| 3      | 4  | 5  | 6  | 7  | 8  | 9  |
| 10     | 11 | 12 | 13 | 14 | 15 | 16 |
| 17     | 18 | 19 | 20 | 21 | 22 | 23 |
| 24     | 25 | 26 | 27 | 28 | 29 | 30 |

| SEPTEMBER |    |    |    |    |    |    |
|-----------|----|----|----|----|----|----|
| S         | M  | T  | W  | T  | F  | S  |
|           | 1  | 2  | 3  | 4  | 5  | 6  |
| 7         | 8  | 9  | 10 | 11 | 12 | 13 |
| 14        | 15 | 16 | 17 | 18 | 19 | 20 |
| 21        | 22 | 23 | 24 | 25 | 26 | 27 |
| 28        | 29 | 30 |    |    |    |    |

| OCTOBER |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| S       | M  | T  | W  | T  | F  | S  |
|         |    |    | 1  | 2  | 3  | 4  |
| 5       | 6  | 7  | 8  | 9  | 10 | 11 |
| 12      | 13 | 14 | 15 | 16 | 17 | 18 |
| 19      | 20 | 21 | 22 | 23 | 24 | 25 |
| 26      | 27 | 28 | 29 | 30 | 31 |    |

| NOVEMBER |    |    |    |    |    |   |    |
|----------|----|----|----|----|----|---|----|
| S        | M  | T  | W  | T  | F  | S |    |
|          |    |    |    |    |    |   | 1  |
| 2        | 3  | 4  | 5  | 6  | 7  |   | 8  |
| 9        | 10 | 11 | 12 | 13 | 14 |   | 15 |
| 16       | 17 | 18 | 19 | 20 | 21 |   | 22 |
| 23       | 24 | 25 | 26 | 27 | 28 |   | 29 |

| DECEMBER |    |    |    |    |    |    |  |
|----------|----|----|----|----|----|----|--|
| S        | M  | T  | W  | T  | F  | S  |  |
|          | 1  | 2  | 3  | 4  | 5  | 6  |  |
| 7        | 8  | 9  | 10 | 11 | 12 | 13 |  |
| 14       | 15 | 16 | 17 | 18 | 19 | 20 |  |
| 21       | 22 | 23 | 24 | 25 | 26 | 27 |  |
| 28       | 29 | 30 | 31 |    |    |    |  |

# COLLEGE CALENDAR

---

## SECOND SEMESTER 1939-1940

|                                      |          |    |
|--------------------------------------|----------|----|
| Registration, Second Semester .....  | February | 5  |
| Final College Examinations end ..... | May      | 25 |
| Commencement Exercises begin .....   | June     | 1  |
| Graduating Exercises .....           | June     | 3  |
| Summer School begins .....           | June     | 10 |
| Summer School ends .....             | July     | 20 |

## SESSION 1940-1941

|                                                  |           |     |
|--------------------------------------------------|-----------|-----|
| Matriculation, new students .....                | September | 11  |
| First payment due Treasurer, new students .....  | September | 11* |
| Matriculation, upperclassmen .....               | September | 16  |
| First payment due Treasurer, upperclassmen ..... | September | 16* |
| Registration, upperclassmen .....                | September | 17  |
| Second payment due Treasurer, all students ..... | November  | 21* |
| Christmas Holidays begin at 12 Noon .....        | December  | 21  |
| Christmas Holidays end at 10 P.M. ....           | January   | 5   |
| First Semester ends .....                        | February  | 1   |
| Third payment due Treasurer, all students .....  | February  | 3*  |
| Registration, Second Semester .....              | February  | 3   |
| Fourth Payment due Treasurer, all students ..... | April     | 4*  |
| Final College Examinations end .....             | May       | 24  |
| Commencement Exercises begin .....               | May       | 31  |
| Graduating Exercises .....                       | June      | 2   |

The above schedule is subject to change by the Faculty.

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\*Important Note: Settlement of College Fees. The Treasurer of the College is the financial officer, and all transactions relating to payments must be made through him. The entrance payment includes the full cost of uniform, plus fees and living expenses for the first quarter, and must be paid before a student can be assigned to a room in barracks. Other payments are due quarterly in advance as indicated above. A quarterly payment deferred by virtue of reason satisfactory to the Treasurer may be extended at the discretion of the Treasurer for a period not exceeding twenty days. At the expiration of this grace period, the names of those in arrears will be automatically removed from the college rolls.

Remittances should be made in cash, by money order, cashier's check, or local check made payable to S. W. Evans, Treasurer, and should be paid at the Treasurer's Office or mailed directly to S. W. Evans, Treasurer, Clemson, South Carolina.

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# BOARD OF TRUSTEES

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## LIFE MEMBERS

|                                |                               |
|--------------------------------|-------------------------------|
| W. W. BRADLEY, <i>Chairman</i> | Columbia, Richland County     |
| A. F. LEVER                    | Columbia, Richland County     |
| PAUL SANDERS                   | Ritter, Colleton County       |
| J. E. SIRRINE                  | Greenville, Greenville County |
| CHRISTIE BENET                 | Columbia, Richland County     |
| T. B. YOUNG                    | Florence, Florence County     |
| R. M. COOPER                   | Charleston, Charleston County |

## TERM EXPIRES 1942

|                |                              |
|----------------|------------------------------|
| S. H. SHERARD  | Ninety Six, Greenwood County |
| W. C. GRAHAM   | Pamplico, Florence County    |
| EDGAR A. BROWN | Barnwell, Barnwell County    |

## TERM EXPIRES 1944

|                    |                            |
|--------------------|----------------------------|
| F. E. COPE         | Cope, Orangeburg County    |
| W. D. BARNETT      | Columbia, Richland County  |
| J. B. DOUTHIT, JR. | Pendleton, Anderson County |

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|                               |                |
|-------------------------------|----------------|
| S. W. EVANS, <i>Secretary</i> | Clemson, S. C. |
|-------------------------------|----------------|

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## STANDING COMMITTEES OF BOARD

AGRICULTURAL: Sherard, *Chairman*; Young, Cooper, Lever, Sanders, Cope, Douthit.

(This committee is also the Veterinary Committee, the Crop Pest Commission, and the Experiment Station Board of Control.)

EXECUTIVE: Benet, *Chairman*; SIRRINE, Young, Cooper, Brown, Graham.

FERTILIZER: Cope, *Chairman*; Sherard, Sanders, Barnett, Douthit, Graham.

\*FINANCE: Benet, SIRRINE, Lever, Brown, Barnett, Douthit.

## STATED MEETINGS OF BOARD

3:00 P.M.—Third Friday in March.

3:00 P.M.—Third Friday in June.

3:00 P.M.—Fourth Monday in October.

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\*Chairman to be elected.

## BOARD OF VISITORS 1939

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|                     |               |
|---------------------|---------------|
| A. E. Jury          | Winnsboro     |
| (Hold-over member)  |               |
| Thomas Ancrum       | Camden        |
| R. B. Caldwell      | Chester       |
| James C. Derieux    | Columbia      |
| T. J. Hendrix       | Duncan        |
| L. D. Holmes        | Johnston      |
| C. S. McCall        | Bennettsville |
| Edward H. McIver    | Charleston    |
| E. M. Meares        | Nichols       |
| H. K. Osborne       | Spartanburg   |
| Ernest R. Rosenberg | Greenwood     |
| J. C. Wilkinson     | Seneca        |

## OFFICERS CLEMSON ALUMNI CORPORATION

---

*President*

T. W. Thornhill, '14.....Charleston, S. C.

*First Vice-President*

J. S. Thurmond, '23.....Edgefield, S. C.

*Second Vice-President*

F. J. Jervey, '14.....Washington, D. C.

*Secretary-Treasurer*

J. H. Woodward, Ex. '03.....Clemson, S. C.

*Assistant Treasurer*

S. W. Evans, Ex. '02.....Clemson, S. C.

### *Board of Directors*

|                    |                           |                    |
|--------------------|---------------------------|--------------------|
| District 1—        | B. B. Bleckley, '28       | Anderson           |
| District 2—        | W. K. Livingston, Ex. '97 | Greenville         |
| District 3—        | W. R. Elliott, Jr., '26   | Winnsboro          |
| District 4—        | J. S. Thurmond, '23       | Edgefield          |
| District 5—        | W. D. Barnett, '10        | Columbia           |
| District 6—        | George Warren, '08        | Hampton            |
| District 7—        | T. W. Thornhill, '14      | Charleston         |
| District 8—        | J. T. Lazar, '12          | Florence           |
| District 9—        | R. H. Fike, '08           | Atlanta, Ga.       |
| District 10—       | F. J. Jervey, '14         | Washington, D. C.  |
| District 11—       | S. R. Finley, '18         | Chattanooga, Tenn. |
| District 12—       | F. N. Rogers, '19         | San Pedro, Cal.    |
| Director at Large— | C. B. Iler, '15           | Greenville         |
| Director at Large— | R. B. Waters, '16         | Columbia           |
| Director at Large— | A. H. Ward, '14           | Aiken              |

# OFFICERS OF ADMINISTRATION

---

ENOCH WALTER SIKES, PH.D., LL.D.  
*President*

\*ROBERT FRANKLIN POOLE, PH.D., D.Sc.  
*President-Elect*

HERBERT MARSHALL POOL, LIEUTENANT COLONEL, INFANTRY  
U. S. ARMY  
*Commandant and P. M. S. and T.*

SAMUEL WILDS EVANS  
*Treasurer and Secretary of Board of Trustees*

JAMES CORCORAN LITTLEJOHN, B.S.  
*Business Manager*

LEE W. MILFORD, M.D.  
*Surgeon*

GUSTAVE ERNEST METZ, B.S., M.A.  
*Registrar*

HERBERT PRESS COOPER, PH.D.  
*Dean, School of Agriculture and  
Director, Agricultural Experiment Station*

WILLIAM BARRE AULL, B.S.  
*Vice-Dean, School of Agriculture*

RUPERT ALONZO MCGINTY, B.S., A.M.  
*Vice-Director, Agricultural Experiment Station*

FRED HARVEY HALL CALHOUN, PH.D.  
*Dean, School of Chemistry*

DAVID WISTAR DANIEL, A.M., Litt.D.  
*Dean, School of General Science*

SAMUEL BROADUS EARLE, A.M., M.E., LL.D.  
*Dean, School of Engineering*

WILLIAM HAROLD WASHINGTON, B.S., M.S.  
*Dean, School of Vocational Education and  
Dean of the Summer School*

HORACE HAROLD WILLIS, B.S.  
*Dean, School of Textiles*

BRUCE DAYVAULT CLOANINGER, B.S.  
*Secretary, Board of Fertilizer Control*

WALTER KEYS LEWIS, V.S., M.D.V.\*\*  
*Director of Livestock Sanitary Work, State Veterinarian*

DAVID WAYNE WATKINS, B.S., M.A.  
*Director of Extension Service*

CORNELIA AYER GRAHAM, B.S.  
*Librarian*

---

\*To begin office July 1, 1940.

\*\*Office: State Office Building, Columbia, S. C.

# FACULTY

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## ENOCH WALTER SIKES

*President*

M.A., Wake Forest College; Ph.D., Johns Hopkins University.

---

ALEXANDER, FRANK DEWITT, *Associate Professor of Sociology and Psychology.*

B.S., 1927, M.A., 1929, Peabody College; Ph.D., Vanderbilt University, 1938.

ALEXANDER, RUFUS CLIFTON, *Instructor in Vocational Education.*

B.S., Clemson Agricultural College, 1929; Graduate Work, University of South Carolina, Summer 1930; Cornell University, Summer 1931.

ANDERSON, ROBERT LOVELL, *Associate Professor of Architecture.*

A.B., Princeton University, 1925; Graduate Work, Columbia University, 1925-1926; Harvard University, 1929-1930; Institute d'Art et d'Archaeologie, Sorbonne, Summer 1929; New York University, Summer 1936.

ANDREWS, FLOOD SHIELDS, *Associate Professor of Horticulture.*

B.S., Virginia Polytechnic Institute, 1924; M.S., Michigan State College, 1928; Ph.D., Cornell University, 1939.

ARMSTRONG, GEORGE MILLER, *Professor of Botany and Bacteriology.*

B.S., Clemson Agricultural College, 1914; M.A., University of Wisconsin, 1917; Ph.D., Missouri Botanical Garden, Washington University, 1921.

AULL, GEORGE HUBERT, *Professor of Agricultural Economics.*

B.S., Clemson Agricultural College, 1919; M.S., University of Virginia, 1928; Ph.D., University of Wisconsin, 1937.

AULL, WILLIAM BARRE, *Vice-Dean, School of Agriculture; Associate Professor of Bacteriology.*

B.S., Clemson Agricultural College, 1907; Graduate Work, University of Virginia, 1909-1910; Iowa State College, Summers 1925, 1927, 1928.

BARNETT, DAVID EUGENE, *Assistant Professor of Military Science and Tactics; Assistant Commandant.*

Major, Infantry, U. S. Army; B.S., Clemson Agricultural College, 1915; Graduate, The Infantry School, 1921.

BELL, MARSHALL CORNETT, *Instructor in Mathematics.*

A.B., 1933, M.A., 1936, University of North Carolina.

BING, WILLIAM KYGER, *Instructor in Agricultural Economics.*

B.S., University of Virginia, 1936; Graduate Work, Virginia Polytechnic Institute, Summer 1939.

BLAIR, WILLIAM GARDINER, *Assistant Professor of Carding.*

New Bedford Textile School, 1908; Clemson Agricultural College, Summer, 1927.

BOOKER, LEONARD ROWLAND, *Itinerant Teacher-Trainer Industrial Education.*

B.S., Clemson Agricultural College, 1925; Graduate Work, University of Chicago, 1927; M.S., University of Tennessee, 1932; Clemson Agricultural College, Summers, 1938, 1939.

BOWEN, WILLIAM CLAYTON, *Assistant Professor of Vocational Education.*

B.S., Clemson Agricultural College, 1932; Graduate Work, Colorado State College, Summers, 1937, 1938.



- BRADLEY, MARK EDWARD, *Professor of English*.  
A.B., Erskine College, 1898; Graduate Work, University of Chicago, Summers 1904, 1910; University of North Carolina, Summer 1927.
- BRANCH, JAMES STROTHER, *Instructor in Engineering*.  
B.S., Clemson Agricultural College, 1936.
- BREWSTER, LAWRENCE FAY, *Instructor in History and Government*.  
A.B., William and Mary College, 1930; A.M., Columbia University, 1932; Graduate work, Princeton University, 1930-1931; Duke University, 1935-1938.
- BROCK, JOHN LELAND, *Assistant Professor of Vocational Education*.  
B.S., Clemson Agricultural College, 1927; M.A., George Peabody College, 1936.
- BROWN, HUGH MONROE, *Professor of Physics*.  
B.A., 1920, M.A., 1921, University of Denver; Ph.D., University of California, 1927.
- BURTNER, FRANK A., *Instructor in Economics and Sociology*.  
B.A., 1939, M.A., 1939, University of Texas.
- BURTON, WILLIAM WILDER, *Assistant Professor of Mathematics*.  
Ph.B., Brown University, 1906; M.A., Mercer University, 1918.
- CALHOUN, FRED HARVEY HALL, *Dean, School of Chemistry and Geology, Professor of Geology and Mineralogy*.  
B.S., 1898, Ph.D., 1902, University of Chicago.
- CAMPBELL, THOMAS ALEXANDER, JR., *Assistant Professor in Textiles*.  
B.S., Clemson Agricultural College, 1928; Graduate Work, Pennsylvania State College, Summer 1939.
- CARODEMOS, PETER, *Associate Professor of Chemistry*.  
B.S., Tufts College, 1922; Ph.D., Cornell University, 1927; Harvard University, Summer 1932.
- CARTEE, EUGENE FRANKLIN, *Acting Associate Professor of Warp Preparation and Knitting*.  
B.S., Clemson Agricultural College, 1925; M.S., University of Tennessee, 1937.
- CHAPMAN, JAMES KIBLER, *Assistant in Woodshop*.  
B.S., Clemson Agricultural College, 1938; Graduate Work, University of North Carolina, Summer 1939.
- CLARKE, ELWYN LORENZO, *Professor of Civil Engineering*.  
B.S. in C.E., 1902, C.E., 1931, University of Illinois.
- CLYBURN, DAVID ARTHUR, *Assistant Professor of Religion*.  
A. B., Wofford College, 1929; B.D., Emory University, 1932; Graduate Work, Vanderbilt University, Special sessions, 1934, 1935; Union Seminary, Columbia University, Summer 1939.
- \*COKER, EDWARD CALEB, JR., *Instructor in Mathematics*.  
A.B., University of South Carolina, 1928; M.A., University of North Carolina, 1930; Graduate Work, Brown University, 1932; University of Chicago, Summers 1936, 1938, 1939.
- COLLINGS, GILBEART HOOPER, *Professor of Soils*.  
B.S., Virginia Polytechnic Institute, 1915; M.S., University of Illinois, 1917; Ph.D., Rutgers University, 1925.
- COOPER, HERBERT PRESS, *Dean, School of Agriculture; Director, Agricultural Experiment Station; Professor of Agronomy*.  
B.S., Clemson Agricultural College, 1911; M.S., University of Wisconsin, 1916; Ph.D., Cornell University, 1922.
- COX, H. MORRIS, *Instructor in English*.  
A.B., 1937, M.A., 1939, Duke University.

\*On leave 1939-1940.

- COX, WALTER THOMPSON, *Assistant Coach*.  
B.S., Clemson Agricultural College, 1939.
- CRANDALL, WILL GILES, *Professor of Vocational Education*.  
B.S., Cornell University, 1920; Graduate Work, Cornell University, Summers 1929, 1930, 1931.
- CREDLE, ALEXANDER BERRY, *Assistant Professor of Electrical Engineering*.  
E.E., 1930, M.E.E., 1931, Ph.D., 1939, Cornell University.
- CROUCH, SYDNEY, J. L., *Professor of Religion*.  
Scotch College, Western Australia, 1910; Biblical Seminary, New York, 1915; B.D., Hartford Theological Seminary, 1922; Th.D., Union Theological Seminary, Richmond, Virginia, 1937.
- CURTIS, DONALD DEXTER, *Professor of Mechanics and Hydraulics*.  
B.E., 1919, University of Iowa; Graduate Work, University of Washington, Summer 1923; M.S., University of Iowa, 1931.
- DANIEL, DAVID WISTAR, *Dean, School of General Science, Professor of English*.  
A.B., Wofford College, 1892; M.A., Vanderbilt University, 1901; Graduate Work, University of Chicago, Summer 1899; Litt.D., Wofford College, 1914.
- \*DAVIS, JOE WALLACE, *Assistant Coach*.  
B.S., Southwestern, 1929.
- DEAN, JORDAN ARTHUR, *Instructor in English and French*.  
A.B. Wofford College, 1933; M.A., Vanderbilt University, 1934; University of Illinois, 1937.
- DOUGHERTY, HENRY WARD, *Instructor in Civil Engineering*.  
B.S., 1936, M.S., 1938, University of Tennessee.
- DOUGLASS, GEORGE ARCHIBALD, *Assistant in Engineering*.  
B.S., Clemson Agricultural College, 1931.
- DOWNS, JAMES B. T., *Instructor in Mechanical Engineering*.  
M.E., 1934, M.S., 1938, Stevens Institute of Technology.
- DUMAS, ALBERT HUGH, *Assistant Professor of Military Science and Tactics, Assistant Commandant and Adjutant*.  
Major, Infantry, U. S. A.; B.S., Alabama Polytechnic Institute, 1917; Graduate, The Infantry School, 1926.
- DUNAVAN, DAVID, *Assistant Professor of Entomology and Zoology*.  
B.S., Oregon Agricultural College, 1925; M.S., Iowa State College, 1928; Graduate Work, Cornell University, Summers 1929, 1931, 1935.
- DUNKLEBERG, GEORGE H., *Assistant Agricultural Engineer*.  
B.S., 1937, M.S., 1938, Iowa State College.
- DUNLAP, GEORGE HEYWARD, *Acting Assistant Professor of Carding and Spinning*.  
B.S., Clemson Agricultural College, 1928; Graduate Work, University of North Carolina, Summer 1935; Massachusetts Institute of Technology, Summer 1936; Pennsylvania State College, Summer 1939.
- EARLE, SAMUEL BROADUS, *Dean, School of Engineering, Professor of Mechanical Engineering, Director of Engineering Experiment Station*.  
A.B., 1893, A.M., 1899, Furman University; M.E., Cornell University, 1902; LL.D., Furman University, 1932; General Electric Company.
- EATON, ROBERT KNIGHT, *Professor of Carding and Spinning*.  
A.B., Bowdoin College, 1905; Graduate Work, Philadelphia Textile School, 1905, 1906.
- EDMOND, JOSEPH BAILEY, *Associate Professor of Horticulture*.  
B.S., Michigan State College, 1923; M.S., Iowa State College, 1924; Ph.D., University of Maryland, 1933.

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\*Until February 1, 1940.

- EDWARDS, GEORGE HERBERT, JR., *Assistant Professor of Mathematics.*  
B.A., M.A., University of South Carolina, 1913; Graduate Work, University of Chicago, Summer 1915, Columbia University 1917-1918, Summer 1919.
- EPTING, CARL LAFAYETTE, *Instructor in History and Government.*  
A.B., Newberry College, 1921; A.M., University of South Carolina, 1924; Graduate Work, University of South Carolina, 1926, 1928, 1932-1934; University of North Carolina, Summers 1927, 1928.
- FEELEY, ROBERT OLIVER, *Professor of Veterinary Science.*  
D.V.S., New York University, 1906.
- FERNOW, BERNHARD EDWARD, *Professor of Mechanical Engineering.*  
A. B., 1904, M.E., 1906, Cornell University.
- FERRIER, WALLACE THOMAS, *Associate Professor of Agricultural Economics.*  
A.B., Tarkio College, 1910; M.S., Colorado State College, 1930; Graduate Work, University of Colorado; Ph.D., University of Minnesota, 1938.
- FITZ PATRICK, THOMAS KEVIN, *Assistant Professor of Architecture.*  
B.Arch., 1932, M.Arch., 1933, Massachusetts Institute of Technology; Graduate Research in Architectural Education, Massachusetts Institute of Technology, 1934.
- FREEMAN, EDWIN JONES, *Associate Professor of Machine Shop.*  
B.S., 1922, M.E., 1939, Clemson Agricultural College.
- GAGE, GASTON, *Instructor in Textile Industry.*  
B.S., Clemson Agricultural College, 1921; Graduate Work, University of North Carolina, Summers 1935, 1936; Pennsylvania State College, Summer, 1939.
- GATES, JAMES EDWARD, *Professor of Economics and Government.*  
B.S., University of Kentucky, 1929; Graduate Work, University of Kentucky, 1929-1930; University of Chicago, 1930-1931; University of Virginia, 1931-1933; Ph.D., University of Virginia, 1935.
- GAUGH, ROBERT HUGH, *Instructor in English.*  
B.A., Union University, 1932; M.A., Vanderbilt University, 1937.
- GEE, ROBERT ESTES, *Instructor in Chemistry and Geology.*  
A.B., Newberry College, 1931; M.A., University of North Carolina, 1934.
- GLENN, HOWARD EMMITT, *Associate Professor of Civil Engineering.*  
B.S. in C.E., 1922, C.E., 1927, University of Kentucky.
- GODFREY, WILLIAM EMERA, *Professor of Physics.*  
A.B., 1893, A.M., 1898, Mercer University; Graduate Work, Summer Quarters 1898, 1899, 1900, University of Chicago; 1906-1907, Cornell University.
- GOODALE, BEN EDMOND, *Associate Professor of Dairying.*  
B.S., 1922, M.S., 1929, Iowa State College.
- GREEN, JOSEPH COLEMAN, *Assistant Professor of English.*  
B.A., 1920, M.A., 1924, Vanderbilt University; Graduate Work, George Peabody College for Teachers, Summers 1930, 1932, 1934; Ph.D., Vanderbilt University, 1937.
- HARRIS, DAVID NIVIN, *Assistant Professor of Drawing.*  
B.S., Clemson Agricultural College, 1908.
- HAUSER, EDWARD RICHARD, *Instructor in Animal Husbandry.*  
B.S., University of Wisconsin, 1938; M.S., Oklahoma A. & M. College, 1939.
- HAWKINS, ~~CLAY~~ FRED, *Instructor in Chemistry.*  
B.S., Newberry College, 1935; Graduate Work, University of North Carolina, Summer 1939.

- HENDRICK, JESSE CODY, *Associate Professor of Physics*.  
B.S., Franklin College, 1925; M.A., 1928, Ph.D., 1930, Indiana University.
- \*HENRY NATHANIEL H., *Instructor in English*.  
A.B., 1929, A.M., 1933, University of North Carolina.
- HICKS, WILLIAM LYLES, *Instructor in Textiles*.  
B.S., Clemson Agricultural College, 1931; Graduate Work, Furman University, Summer 1938; University of Tennessee, Summer 1939.
- HINSON, CLAUDE RANDOLPH, *Assistant Coach*.  
B.S., Clemson Agricultural College, 1936.
- HODGE, WYLIE FORT DUPRE, *Assistant Professor of Architecture*.  
Clemson Agricultural College, 1907-1908, 1908-1909; New York School of Fine and Applied Arts, 1915-1916, 1920-1921; Further Work, R.R. Gallerie di Firenze, Italy, Summer 1931.
- HODGES, BAXTER H., *Instructor in Chemistry*.  
B.S., Clemson Agricultural College, 1933; Graduate Work, University of North Carolina, Summers 1935, 1936, 1937, 1938, 1939.
- HOLMES, ALESTER GARDEN, *Professor of History*.  
B.S., The Citadel, 1897; Graduate Work, University of Chicago, Summer 1911.
- HOWARD, FRANK JAMES, *Head Coach of Intercollegiate Athletics*.  
B.S., University of Alabama, 1931.
- HUCKABEE, MARVIN L., *Instructor in Textile Chemistry and Dyeing*.  
B.S., Clemson Agricultural College, 1933; Graduate Work, University of North Carolina, Summers 1935, 1936, 1937, 1938, 1939.
- HUFF, LORENZ DITMAR, *Assistant Professor of Physics*.  
A. B., 1927, M.S., 1928, Oklahoma University; Ph.D., California Institute of Technology, 1931.
- HUFFORD, GLENN DEWITT, *Assistant Professor of Military Science and Tactics, Assistant Commandant*.  
Major, Infantry, U.S.A.; Graduate Company Officers' Course, The Infantry School, 1925.
- HUNTER, HOWARD L., *Associate Professor of Chemistry*.  
B.Chem., 1925, Ph.D., 1928, Cornell University; Massachusetts Institute of Technology, Summer 1939.
- HUNTER, JOSEPH EVERETT, *Professor of Mathematics*.  
B.S., Clemson Agricultural College, 1896; Graduate Work, University of Chicago, Summers 1902, 1904, 1910; University of North Carolina, Summer 1923.
- JOHNSON, WILLIS EDWIN, *Assistaant Professor of Vocational Education*.  
B.S., Mississippi A. and M. College, 1922; Graduate Work, Cornell University, Summer 1931.  
(In charge of Agricultural Education work at Seneca, S. C.)
- JONES, JESS WILLARD, *Instructor in Agronomy*.  
B.S., Clemson Agricultural College, 1937; M.S., Cornell University, 1938.
- JONES, ROBERT MORGAN, *Assistant Coach*.  
B.S., Clemson Agricultural College, 1930.
- KELLY, LOUIS GRANT, *Instructor in Mathematics*.  
B.S., Clemson Agricultural College, 1937; Graduate Work, University of North Carolina, Summers 1938, 1939.
- \*\*KERLEY, DAVID MOORMAN, *Instructor in Mathematics*.  
A.B., University of North Carolina, 1938; M.A., Louisiana State University, 1939.

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\*On leave 1938-1939, 1939-1940.

\*\*In place of E. C. Coker, on leave.



- KINARD, FRANCIS MARION, *Associate Professor of English.*  
A.B., Wofford College, 1923; A.M., University of North Carolina, 1929;  
Graduate Work, University of North Carolina, Summer 1930.
- KIRCHNER, GEORGE FREDERICK, *Instructor in Intramural Sports.*  
B.S., Clemson Agricultural College, 1933; Graduate Work, Y.M.C.A.  
Graduate School, 1933; Springfield College, Summer 1934; M.S., Louisiana  
State University, 1938.
- KIRKLEY, FRANCIS EDWARD, *Assistant Professor of Vocational Education.*  
B.S., Clemson Agricultural College, 1929; Graduate Work, Clemson  
Agricultural College, Summers 1938, 1939.  
(In charge of Agricultural Education work, Central, S. C.)
- KIRKWOOD, CHARLES EDWARD, JR., *Instructor in Mathematics and Physics.*  
A.B., Lynchburg College, 1935; M.S., University of Georgia, 1937;  
Graduate Work, University of North Carolina, Summer 1939.
- KLUGH, WILLISTON WIGHTMAN, *Associate Professor of Drawing.*  
B.S., Clemson Agricultural College, 1896; Graduate Work, Vanderbilt  
University, 1898; Cornell University, 1900.
- LAMASTER, JOSEPH PAUL, *Professor of Dairying.*  
B.S., 1913, M.S., 1928, University of Kentucky.
- LANE, JOHN DEWEY, *Associate Professor of English.*  
A.B., Newberry College, 1920; M.A., University of Virginia, 1924;  
Graduate Work, Columbia University, 1928-1929, Summer 1923; George  
Peabody College, Summer 1935.
- LEE, RUDOLPH EDWARD, *Professor of Architecture.*  
B.S., 1896, M.Arch., 1928, Clemson Agricultural College; Graduate Work,  
Zanerian Art School, Summer, 1899; Cornell University, Summer 1900;  
University of Pennsylvania, 1901.
- LINDSAY, JOSEPH, JR., *Professor of Textile Chemistry and Dyeing.*  
A.B., Erskine College, 1919; Graduate Work, University of North Caro-  
lina, 1923-1924; Massachusetts Institute of Technology, 1924; University  
of Chicago, 1925; Philadelphia Textile School 1925-1926.
- LIPPINCOTT, WILLIAM LEROY, *Associate Professor of Chemistry.*  
B.Chem., 1918, Graduate Work, 1919-1920, Cornell University.
- LIPSCOMB, RALPH WALDO, *Instructor in Agronomy.*  
B.S., Clemson Agricultural College, 1928; M.S., Michigan State College,  
1930.
- LUCAS, JOHN PAUL, *Assistant Professor of English.*  
A.B., Duke University, 1930; M.S., State College of the University of  
North Carolina, 1931; A.M., Princeton University, 1933.
- MCADAMS, WILLIAM NEWTON, *Instructor in Agricultural Engineering and  
Assistant Agricultural Engineer.*  
B.S., Clemson Agricultural College, 1938; M.S., University of Georgia,  
1939.
- MCDOWELL, DAVID ARCHIBALD, *Instructor in English.*  
A.B., Furman University, 1938; M.A., University of North Carolina, 1939.
- MCGINTY, RUPERT ALONZO, *Vice-Director of Agricultural Experiment  
Station.*  
B.S., Alabama Polytechnic Institute, 1913; A.M., Washington University,  
1919; Graduate Work, Cornell University, 1926-1927.
- McKENNA, ARTHUR ERNEST, *Associate Professor of Weaving and Design.*  
Graduate Rhode Island School of Design, 1922; Bradford-Durfee Textile  
School, 1925; B.S., Clemson Agricultural College, 1930; M.S., University  
of Tennessee, 1933.
- McMILLAN, COVINGTON, *Assistant Coach.*  
B.S., Clemson Agricultural College, 1930, M.A., George Peabody College,  
1935.

- MARSHALL, JOHN LOGAN, *Associate Professor of Wood Work.*  
Georgia School of Technology, 1905-1906, 1906-1907; B.S., Clemson Agricultural College, 1909; Graduate Work, Bradley Polytechnic Institute, 1919.
- MARTIN, SAMUEL MANER, *Professor of Mathematics.*  
B.S., The Citadel, 1896; Graduate Work, Cornell University, Summer 1900; Harvard University, Summer 1904; University of Chicago, Summer 1908.
- METZ, GUSTAVE ERNEST, *Registrar.*  
B.S., Clemson Agricultural College, 1927; M.A., University of North Carolina, 1928; Graduate Work, University of North Carolina, 1928-1929; Ohio State University, Summer 1930; Teachers College, Columbia University, 1931-1932; University of Chicago, Summer 1939.
- MILLER, WILLIAM GILBERT, *Instructor in Mathematics.*  
A.B., Birmingham Southern College, 1931; M.A., University of Florida, 1933; Graduate Work, University of Florida, Summer 1933.
- MILLS, WILLIAM HAYNE, *Professor of Rural Sociology.*  
A.B., Davidson College, 1892; B.D., Columbia Theological Seminary, 1897.
- MITCHELL, JACK HARRIS, *Professor of Chemistry.*  
B.S., 1903, M.S., 1904, Alabama Polytechnic Institute; M.S., University of Illinois, 1911.
- MONROE, JAMES BEASLEY, *Associate Professor of Vocational Education.*  
B.S., Clemson Agricultural College, 1915; M.S., Texas A. & M. College, 1935; Graduate Work, Cornell University, Summer 1938.
- MORGAN, CHARLES LEE, *Professor of Poultry Husbandry.*  
B.S., 1918, M.S., 1927, University of Kentucky; Graduate Work, University of Wisconsin, 1931-1932.
- MUSSER, ALBERT MYERS, *Professor of Horticulture.*  
B.S., University of Florida, 1918; Graduate Work, Michigan State College, 1930, 1933.
- \*NEELY, JESS C., *Head Coach of Intercollegiate Athletics.*  
LL.B., Vanderbilt University, 1924.
- NEWMAN, CHARLES CARTER, *Professor of Horticulture.*  
Alabama Polytechnic Institute; B.S., Clemson Agricultural College, 1895.
- NORMAN, ABSALOM WILLIS, *Assistant Coach.*  
A.B., Roanoke College, 1913.
- NUTT, GEORGE B., *Associate Professor of Agricultural Engineering.*  
B.S. in Agricultural Engineering, Mississippi State College, 1930; Graduate Work, Iowa State College, Summers 1934, 1937; Training Course, International Harvester Company, 1931, 1932; Graduate Work, Virginia Polytechnic Institute, Summer 1939.
- ORENS, IRVING PEARY, *Assistant Professor of Physics.*  
B.S., University of Virginia, 1926; M.A., Columbia University, 1928; Ph.D., University of Virginia, 1934; Graduate Work, Yale University, 1930-1931; University of Berlin, Germany, 1931-1932.
- PATRICK, CHARNER SCAIFE, *Head Farms Department.*  
B.S., Clemson Agricultural College, 1913; Graduate Work, Iowa State College, 1930, Summer 1931.
- \*\*PERRY, LUCIUS ALVIN, *Assistant Professor of Civil Engineering.*  
B.S., Clemson Agricultural College, 1937.
- PETERSON, MILO J., *Assistant Agricultural Economist.*  
B.S., University of Minnesota, 1933; M.S., Cornell University, 1937. Requirements completed for Ph.D. at Cornell University.

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\*Until February 1, 1940.

\*\*In place of J. A. Stevenson.

- PETERSON, VERD, *Consulting Professor of Agricultural Education, State Supervisor of Agricultural Education, Columbia, S. C.*
- PHILPOT, CLAUDE PAUL, *Assistant Professor of Forge and Foundry.*  
B.S., Clemson Agricultural College, 1928; Training Course, Bethlehem Steel Company, 1928.
- POLLARD, FRANK H., *Professor of Chemistry.*  
B. of Chem., 1916, Ph.D., 1922, Cornell University.
- POOL, HERBERT MARSHALL, *Professor of Military Science and Tactics, Commandant of Cadets.*  
Lieutenant Colonel, Infantry, U. S. Army; B.S., A. and M. College of Texas, 1911; Graduate, The Infantry School, 1925; Command and General Staff School, 1926; Army War College, 1931; General Staff Corps Eligible List.
- REED, ALBERT RAYMOND, *Assistant Professor of Physics.*  
A.B., Wofford College, 1925; M.S., University of South Carolina, 1931; Graduate Work, University of North Carolina, Summers 1931, 1933.
- RHODES, SAM ROSEBOROUGH, *Professor of Electrical Engineering.*  
B.S., 1900, M.S., 1901, Furman University; B.S., 1907, E.E., 1928, Clemson Agricultural College; General Electric Company; Westinghouse Electric and Manufacturing Company.
- RHYNE, ORESTES PEARL, *Professor of Modern Languages.*  
A.B. Lenoir-Rhyne College, 1907; A.B., 1908, A.M., 1909, University of North Carolina; Ph.D., Johns Hopkins University, 1913; University of Heidelberg, Summer 1914; University of Leipzig, Summer 1922.
- RITCHIE, ROBERT RUSSELL, *Assistant Professor of Animal Husbandry.*  
B.S., 1926, M.S., 1938, Iowa State College.
- ROSENKRANS, DUANE B., *Associate Professor of Botany.*  
A.B., Upper Iowa University, 1911; M.A., University of Wisconsin, 1917.
- SAMS, JAMES HAGOOD, JR., *Associate Professor of Mechanical Engineering.*  
B.S., Clemson Agricultural College, 1924; E.E., Cornell University, 1926; M.S., 1931, Ph.D., 1937, University of Michigan.
- SCARBOROUGH, JOSEPH, *Instructor in Mathematics.*  
B.S., Emory University, 1939; Graduate Work, Emory University, Fall Quarter, 1939.
- SHANKLIN, AUGUSTUS G., *Professor Emeritus of Mathematics.*  
B.S., The Citadel, 1893; Graduate Work, Cornell University, Summer 1908; Columbia University, Summer 1911.
- SHANOR, LELAND, *Instructor in Botany.*  
A.B. Maryville College, 1935; M.A., 1937, Ph.D., 1939, University of North Carolina.
- SHELDON, DAWSON C., *Associate Professor of Mathematics.*  
B.S., State College of Washington, 1925; M.A., 1927, Ph.D., 1929, University of California.
- SHENK, DONALD H., *Associate Professor of Mechanical Engineering.*  
B.S., M.E., Purdue University, 1924; Graduate Work, Purdue University, 1927-1929; S.P.E.E., Summer School 1929.
- SHERMAN, FRANKLIN, *Professor of Entomology and Zoology.*  
B.S., Agriculture, Cornell University, 1900; M.S., University of Maryland, 1912.
- SHIGLEY, JOSEPH EDWARD, *Instructor in Engineering.*  
B.S. in E.E., 1931, B.S. in M.E., 1932, Purdue University.

SIMS, JULES V., *Assistant Professor of Military Science and Tactics, Assistant Commandant.*

Major, Infantry, U. S. Army; Graduate, The Infantry School, 1930.

STARKEY, LAWRENCE VINCENT, *Professor of Animal Husbandry.*

B.S., University of Illinois, 1914; M.S., University of Wisconsin, 1917; Graduate Work, University of Wisconsin, 1930.

STEPHENS, JOHN CALHOUN, JR., *Instructor in English.*

A.B., 1937, M.A., 1938, Emory University; Graduate Work, Emory University, Summer 1939.

\*STEVENSON, JAMES ANNE, *Assistant Professor of Civil Engineering.*

B.C.E., University of Arkansas, 1925; M.S., Iowa State College, 1927.

STEVENSON, WILLIAM DAMON, JR., *Instructor in Electrical Engineering.*

B.S.E., Princeton University, 1934; B.S. in E.E., Carnegie Institute of Technology, 1939; Graduate Work, University of Michigan.

STRIBLING, BRUCE HODGSON, *Associate Professor of Vocational Education.*

B.S., Clemson Agricultural College, 1918; Graduate Work, George Peabody College, Summers 1927, 1929; Ohio State University, Summer 1939.

TARRANT, WILLIAM EDWARD, *Assistant Professor of Weaving.*

B.S., Clemson Agricultural College, 1927; Graduate Work, Alabama Polytechnic Institute, Summer 1932; Clemson Agricultural College, Summers 1937, 1938; Pennsylvania State College, Summer 1939.

TATE, HAROLD SIMMONS, *Associate Professor of Vocational Education.*

B.S., Clemson Agricultural College, 1925; M.A., Columbia University, 1929; Graduate Work, George Peabody College, Summers 1927, 1931, 1932; Pennsylvania State College, Summers 1936, 1937, 1938, 1939.

TAYLOR, FRED HERBERT, *Instructor in Botany.*

B.S., Massachusetts State College, 1933; A.M., 1934, Ph.D., 1939, Harvard University.

TAYLOR, RUPERT, *Associate Professor of English.*

A.B., 1903, A.M., 1906, University of Arkansas; Ph.D., Columbia University, 1911.

THERKELSEN, ERNEST BRIGHAM, *Instructor in Electrical Engineering.*

B.S., Montana State College, 1936; Graduate Work, Massachusetts Institute of Technology, Summer 1939.

TINGLEY, FREEMAN THAYER, *Associate Professor of Electrical Engineering.*

B.S., 1922, E.E., 1935, Bucknell University; M.S., University of Illinois, 1929; Course, Westinghouse Company.

TURNER, BENJAMIN RYAN, *Consulting Professor of Industrial Education.*

A.B., 1926, M.A., 1931, Wofford College; Clemson College, Summer 1927; Graduate Work, University of Cincinnati, 1934-1935, Summer 1936.

VANDIVERE, EDGAR, *Instructor in Physics.*

A.B., Emory University, 1934; M.A., Duke University, 1935; Graduate Work, Duke University, 1935-1936.

WALKER, GORDON BEVERLEY MOORE, *Instructor in Textiles.*

B.S., Clemson Agricultural College, 1937; Clemson Agricultural College, Summer 1939.

\*\*WALKER, R. CASPER, *Instructor in History and Government.*

A.B., 1935, M.A., 1937, Emory University.

WALTERS, JOHN VERNON, *Instructor in Textiles.*

B.S., Clemson Agricultural College, 1933, Summer, 1938.

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\*Resigned October 30, 1939.

\*\*On leave, 1939-1940.



- WALTHOUR, RUSSELL FLEMING, JR., *Assistant Professor of Military Science and Tactics, Assistant Commandant.*  
Major, Infantry, U. S. Army; B.S., Alabama Polytechnic Institute, 1916; Graduate, The Infantry School, 1922.
- WARD, JAMES EDWARD, JR., *Professor of Economics and Government.*  
B.S., 1929, M.S., 1931, University of Virginia; Graduate Work, Harvard University, 1932-1933; Ph.D., University of Virginia, 1935.
- WARE, ROBERT EDWARD, *Instructor in Zoology and Entomology.*  
B.S., Iowa Wesleyan College, 1929; Graduate Work, Iowa State College, Summers, 1931, 1932, 1938.
- WASHINGTON, WILLIAM HAROLD, *Dean, School of Vocational Education, Dean of the Summer School.*  
B.S., Clemson Agricultural College, 1920; M.S., Iowa State College, 1922; Graduate Work, Georgia School of Technology, Summer 1925; George Peabody College, Summers 1928, 1929; 1932-1933.
- WHITE, THOMAS ARLINGTON, *Professor of Vocational Education.*  
B.S., 1924, M.S., 1929, North Carolina State College; Ph.D., Cornell University, 1933.
- WILLIAMS, BARNETT OSBORNE, *Professor of Rural Sociology and Statistics.*  
B.S., Clemson Agricultural College, 1918; M.S., University of Virginia, 1929; Ph.D., University of Minnesota, 1938.
- WILLIAMS, WILLIAM BRATTON, *Assistant Professor of Weaving and Designing.*  
B.S., Clemson Agricultural College, 1925; Graduate Work, Pennsylvania State College, Summer, 1939.
- WILLIS, HORACE HAROLD, *Dean, School of Textiles.*  
B.S., Clemson Agricultural College, 1917; Cotton Spinning Research, U. S. Department of Agriculture, 1921-1930.
- ZURBURG, FREDERICK WILLIAM, *Assistant Professor of Chemistry.*  
B.S., 1927, M.S., 1928, University of North Carolina; Graduate Work, Virginia Polytechnic Institute, Summer 1939.

# STANDING COMMITTEES OF THE FACULTY

## 1939-1940

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The President is *ex officio* a member of all committees.

### ADMISSIONS:

Daniel, *Chairman*; Calhoun, Cooper, Holmes, Martin, Metz.

### ADVANCED COURSES:

Brown, Cooper, Hunter, H. L., Sams, White, Registrar, *ex officio*.

### ASSEMBLIES AND LECTURES:

Daniel, *Chairman*; Bradley, Crouch, Earle, Freeman, Lippincott.

### ATHLETICS:

Milford, *Chairman*; Gage, Mitchell, Rhodes, Watkins, J. C. Littlejohn, Business Manager, *ex officio*; G. E. Metz, Registrar, *ex officio*.

### AWARDS AND HONORS:

Daniel, *Chairman*; Armstrong, Carodemos, Curtis, McKenna, Monroe.

### CATALOG:

President Sikes, *Chairman*; Littlejohn, Metz, Washington.

### DAY AND SPECIAL STUDENTS:

Metz, *Chairman*; Holtzendorff, Littlejohn, The Commandant.

### DEFICIENT STUDENTS:

Kinard, *Chairman*; Burton, Hunter, J. E., Brown, Goodale, Pollard.

### FACULTY PROGRAM:

Goodale, *Chairman*; Brown, Rosenkrans, Ward, Sams, Hunter, H. L., Stribling.

### LIBRARY:

The Librarian, *Chairman*; Calhoun, Lee, Holmes, Lane, Mills, Rhyne, Metz.

### SCHEDULE:

Metz, *Chairman*; Aull, Dumas, Gage, Heath, Kinard, Pollard, Rhodes, Sams, Tate.

### SCHOLASTIC RULES AND REGULATIONS:

Metz, *Chairman*; Aull, W. B., Calhoun, Daniel, Earle, Kinard, Mitchell, Martin, Tate, Willis.

### SECONDARY SCHOOLS RELATIONS:

Metz, *Chairman*; Booker, Kinard, Marshall, Sherman, Washington.

### STUDENT LOANS:

Littlejohn, *Chairman*; Evans, Woodward.

### STUDENT ORGANIZATIONS:

Eaton, *Chairman*; Brock, Calhoun, Collings, Freeman, Marshall, Taylor.

### STUDENT PUBLICATIONS:

Lane, *Chairman*; Littlejohn, Sherman, J. E.

### UNIFORM:

Littlejohn, *Chairman*; Douthit (Trustee-Member), Eaton, Evans, The Commandant.

### VISITORS:

Woodward, *Chairman*; Littlejohn, Metz, The Commandant.

## OTHER OFFICERS AND ASSISTANTS

|                                                            |                                              |
|------------------------------------------------------------|----------------------------------------------|
| JACOB HENRY WOODWARD                                       | Assistant to the President                   |
| VIRGINIA EARLE SHANKLIN                                    | Secretary to the President                   |
| *JOHN WALLACE LAGRONE, B.S., M.A.                          | Assistant Registrar                          |
| KENNETH NOTLEY VICKERY, B.S.                               | Acting Assistant Registrar                   |
| ARTHUR VICTORIEUS WILLIAMS, JR., B.S.                      | Acting Assistant to the Registrar            |
| JEAN BEVERLEY SLOAN                                        | Assistant to the Registrar                   |
| DOROTHY LAW, B.S.                                          | Stenographer, Registrar's Office             |
| REMER TOWNSEND LINLEY, B.S.                                | Stenographer, Registrar's Office             |
| JOHN GOODMAN, B.S., A.B. in L.S.                           | Assistant Librarian                          |
| JOSEPHINE VERNER STROTHER, A.B., A.B. in L.S.              | Assistant Librarian                          |
| ELEANOR VIRGINIA DREWRY, A.B., A.B. in L.S.                | Assistant Librarian                          |
| *ANTOINETTE HARRISON EARLE, A.B.                           | Assistant Librarian                          |
| **LOUISE PRITCHARD                                         | Assistant Librarian                          |
| JOSEPH EDGAR SHERMAN, B.S.                                 | Athletic Publicity Director                  |
| GRAHAM HAMILTON HILL                                       | Assistant Business Manager                   |
| MARY LEIGHTON MILLS RITCHIE, B.S.                          | Assistant to the Business Manager            |
| EMMA LOU WIGINGTON                                         | Stenographer, Business Manager's Office      |
| BOYCE B. BURLEY                                            | Bookkeeper                                   |
| ANDREW JOSEPH BROWN, B.S.                                  | Bookkeeper                                   |
| HAROLD D. COCHRAN                                          | Assistant Bookkeeper                         |
| HELEN MORRISON                                             | Assistant to the Treasurer                   |
| IDA TOWNSEND                                               | Clerk, Treasurer's Office                    |
| OTIS ALPHONSO DEMOTT, Sergeant, DEML, Infantry, U. S. Army | Assistant to the Commandant                  |
| HENRY SANFORD HEATH, Sergeant, DEML, Infantry, U. S. Army  | Assistant to the Commandant                  |
| KENNEY RIXIE HELTON, Sergeant, DEML, Infantry, U. S. Army  | Assistant to the Commandant                  |
| HARRY JOHN WILKINSON, Sergeant, DEML, Infantry, U. S. Army | Assistant to the Military Property Custodian |
| FLOYD IRVING BROWNLEY, A.B.                                | Graduate Assistant, Chemistry                |
| ROBERT MOORHEAD GEER, B.S.                                 | Graduate Assistant, Architecture             |
| THOMAS SMITH HUMPHRIES, A.B.                               | Graduate Assistant, Chemistry                |
| HAROLD JESSE McALISTER, B.S.                               | Graduate Assistant, Botany and Bacteriology  |
| NORMAN JEFF McFADDEN, B.S.                                 | Graduate Assistant, Botany and Bacteriology  |
| ROBERT WITHERSPOON MILLER, A.B.                            | Graduate Assistant, Chemistry                |
| FRANK LESLIE VERNON, B.S.                                  | Graduate Assistant, Chemistry                |
| JOHN DRAKE WATSON, B.S.                                    | Graduate Assistant, Botany and Bacteriology  |
| JAMES EARL YORK, B.S.                                      | Graduate Assistant, Chemistry                |
| IRENE JULIAN, R.N.                                         | Drug Nurse and Dietician                     |
| MYRTLE DEAN                                                | X-Ray and Laboratory Technician              |
| JOSEPH M. GLASCOCK, R.N.                                   | General Nursing                              |
| GLADYS MITCHELL, R.N.                                      | Assistant Nurse                              |
| VIRGINIA HAYNES                                            | Assistant Nurse                              |
| LUDIE WILSON, R.N.                                         | Assistant Nurse and Assistant Dietician      |
| BLANCHE F. GLASCOCK                                        | Secretary to the College Surgeon             |
| DAVID J. WATSON, B.S.                                      | Supt. of Campus, Roads and Buildings         |
| JAMES DOUGLAS HARCOTMB                                     | Mess Officer                                 |
| PRESTON BROOKS HOLTZENDORFF, JR., L.L.B.                   | General Secretary, Y. M. C. A.               |
| JOHN ROY COOPER, B.S.                                      | Associate Secretary, Y. M. C. A.             |
| JOHN K. GOODE, A.B.                                        | Pastor Baptist Church                        |
| DONALD E. VEALE                                            | Rector, Episcopal Church                     |
| SYDNEY J. L. CROUCH, B.D., Th.D.                           | Pastor, Presbyterian Church                  |
| DAVID ARTHUR CLYBURN, A.B., B.D.                           | Pastor, Methodist Church                     |
| HENRY L. SPIESMAN                                          | Pastor, St. Andrews Catholic Church          |

\*On leave 1939-1940.

\*\*In place of Miss Earle on leave.

# AGRICULTURAL EXPERIMENT STATION

## STAFF

### *Board of Control*

|                                                  |            |
|--------------------------------------------------|------------|
| HONORABLE SAM H. SHERARD.....                    | Ninety Six |
| HONORABLE W. W. BRADLEY, <i>Ex-Officio</i> ..... | Columbia   |
| HONORABLE T. B. YOUNG.....                       | Florence   |
| HONORABLE A. F. LEVER.....                       | Columbia   |
| HONORABLE PAUL SANDERS.....                      | Ritter     |
| HONORABLE F. E. COPE.....                        | Cope       |
| HONORABLE R. M. COOPER.....                      | Columbia   |
| HONORABLE J. B. DOUTHIT.....                     | Pendleton  |

|                               |                      |
|-------------------------------|----------------------|
| E. W. SIKES, Ph.D., LL.D..... | <i>President</i>     |
| H. P. COOPER, Ph.D.....       | <i>Director</i>      |
| R. A. MCGINTY, A.M.....       | <i>Vice-Director</i> |

### *Agricultural Economics and Rural Sociology*

|                           |                                  |
|---------------------------|----------------------------------|
| G. H. Aull, Ph.D.....     | Agricultural Economist           |
| B. O. Williams, Ph.D..... | Rural Sociologist                |
| W. T. Ferrier, Ph.D.....  | Associate Agricultural Economist |
| J. D. Kinard, M.S.....    | Assistant Rural Sociologist      |
| M. J. Peterson, M.S.....  | Assistant Agricultural Economist |
| Ernest Riley, B.S.....    | Assistant Agricultural Economist |
| *H. A. White, B.S.....    | Assistant Agricultural Economist |

### *Agronomy*

|                            |                                 |
|----------------------------|---------------------------------|
| H. P. Cooper, Ph.D.....    | Agronomist                      |
| W. R. Paden, Ph.D.....     | Agronomist                      |
| Frank Moser, Ph.D.....     | Associate Agronomist            |
| G. B. Killinger, Ph.D..... | Associate Soil Scientist        |
| H. T. Polk, Ph.D.....      | Associate Agronomist            |
| J. W. Jones, M.S.....      | Assistant Agronomist            |
| H. A. Einstein, Ph.D.....  | Hydraulic Engineer              |
| G. B. Nutt, B.S.....       | Assistant Agricultural Engineer |
| G. H. Dunkleberg, M.S..... | Assistant Agricultural Engineer |
| W. N. McAdams, M.S.....    | Assistant Agricultural Engineer |

### *Animal Husbandry*

|                                  |                              |
|----------------------------------|------------------------------|
| L. V. Starkey, M.S.....          | Animal Husbandman            |
| E. G. Godbey, B.S.....           | Associate Animal Husbandman  |
| G. W. Anderson, D.V.M., M.S..... | Associate Animal Pathologist |

### *Botany and Bacteriology*

|                            |                                          |
|----------------------------|------------------------------------------|
| G. M. Armstrong, Ph.D..... | Botanist and Plant Pathologist           |
| W. B. Aull, B.S.....       | Associate Bacteriologist                 |
| C. H. Arndt, Ph.D.....     | Associate Botanist and Plant Pathologist |
| W. B. Albert, Ph.D.....    | Associate Plant Physiologist             |

\*In cooperation with the United States Department of Agriculture.



|                           |                     |
|---------------------------|---------------------|
| C. C. Bennett, B.S.       | Assistant in Botany |
| *Richard Weindling, Ph.D. | Agent               |
| *B. S. Hawkins, B.S.      | Agent               |
| *G. W. Boozer, Jr., B.S.  | Agent               |
| *W. B. Keller, B.S.       | Agent               |
| *C. C. Miley, B.S.        | Agent               |

*Chemistry*

|                      |                   |
|----------------------|-------------------|
| J. H. Mitchell, M.S. | Chemist           |
| E. J. Lease, Ph.D.   | Associate Chemist |
| D. B. Roderick, B.A. | Assistant Chemist |

*Dairy*

|                      |                       |
|----------------------|-----------------------|
| J. P. LaMaster, M.S. | Dairyman              |
| G. H. Wise, Ph.D.    | Associate Dairyman    |
| P. G. Miller, Ph.D.  | Associate Dairyman    |
| E. R. Stewart, B.S.  | Assistant in Dairying |

*Entomology*

|                        |                        |
|------------------------|------------------------|
| Franklin Sherman, M.S. | Entomologist           |
| O. L. Cartwright, M.S. | Associate Entomologist |
| W. M. Upholt, Ph.D.    | Assistant Entomologist |

*Home Economics*

|                       |                          |
|-----------------------|--------------------------|
| Ada M. Moser, M.S.    | Home Economist in Charge |
| Mary E. Frayser, M.A. | Home Economist           |

*Horticulture*

|                      |                          |
|----------------------|--------------------------|
| A. M. Musser, B.S.   | Horticulturist           |
| J. B. Edmond, Ph.D.  | Associate Horticulturist |
| F. S. Andrews, Ph.D. | Associate Horticulturist |

*Farms*

|                     |                       |
|---------------------|-----------------------|
| C. S. Patrick, B.S. | Head Farms Department |
|---------------------|-----------------------|

*Poultry*

|                       |                              |
|-----------------------|------------------------------|
| C. L. Morgan, M.S.    | Poultryman                   |
| R. C. Ringrose, Ph.D. | Assistant Poultry Husbandman |

*Publications*

|                      |                     |
|----------------------|---------------------|
| A. B. Bryan, B.Litt. | Agricultural Editor |
| J. E. McCurry, B.S.  | Bulletin Clerk      |

*Veterinary*

|                      |              |
|----------------------|--------------|
| R. O. Feeley, D.V.S. | Veterinarian |
|----------------------|--------------|

---

\*In cooperation with the United States Department of Agriculture.

*Coast Station  
Summerville, South Carolina*

E. D. Kyzer, B.S.-----Superintendent  
\*R. L. Jones, B.S.-----Agent

*Pee Dee Station  
Florence, South Carolina*

E. E. Hall, M.S.-----Superintendent  
\*W. H. Jenkins, B.S.-----Associate Agronomist  
\*F. F. Bondy, B.S.-----Assistant Entomologist  
\*C. F. Rainwater, B.S.-----Assistant Entomologist  
\*Norman Allen, M.S.-----Assistant Entomologist  
Frank Harrell-----Research Assistant  
\*J. D. McCown-----Agent

*Sandhill Station  
R. 5, Columbia, South Carolina*

J. A. Riley, M.S.-----Superintendent  
L. E. Scott, M.S.-----Assistant Horticulturist  
R. W. Wallace, B.S.-----Assistant Agronomist  
\*Nelson McKaig, M.S.-----Associate Soil Technologist  
\*S. L. Cathcart, B.S.-----Agent  
\*E. M. Roller, Ph.D.-----Assistant Chemist  
\*W. A. Carns-----Agent

*Truck Station  
Post Office Box 337  
Charleston, South Carolina*

W. C. Barnes, Ph.D.-----Superintendent  
J. M. Jenkins, Jr., M.S.-----Assistant Horticulturist  
\*W. J. Reid, Jr., B.S.-----Assistant Entomologist

*Edisto Station  
Blackville, South Carolina*

W. B. Rogers, B.S.-----Superintendent  
R. L. Smith, M.S.-----Assistant Agronomist  
C. J. Nusbaum, Ph.D.-----Assistant Plant Pathologist  
J. G. Watts, M.S.-----Assistant Entomologist

*Crop Pest Commission*

G. M. Armstrong, Ph.D.-----State Pathologist  
Franklin Sherman, M.S.-----State Entomologist  
J. A. Berly, B.S.-----Assistant State Entomologist  
M. B. Stevenson, B.S.-----Assistant State Pathologist

*Fertilizer Inspection and Analysis*

B. D. Cloaninger, B.S.-----Head of Department  
B. F. Robertson, B.S.-----Toxicologist  
H. J. Webb, Ph.D.-----Chief Chemist  
J. T. Foy, B.S.-----Chemist  
C. R. Clark, B.S.-----Assistant Chemist  
E. E. Leslie, B.S.-----Assistant Chemist  
C. H. Hollis, B.S.-----Assistant Chemist

# LIVESTOCK SANITARY WORK STAFF

## COLUMBIA, SOUTH CAROLINA

---

W. K. LEWIS, V.S., M.D.V.-----State Veterinarian and Director

---

R. A. MAYS, B.Sc., D.V.M.-----Assistant State Veterinarian  
JACK SCOTT, D.V.M.-----Assistant State Veterinarian  
E. T. FISHER, D.V.M.-----Assistant State Veterinarian  
F. K. PETERSON, D.V.M.-----Assistant State Veterinarian  
W. R. CHASTAIN, D.V.M.-----Assistant State Veterinarian  
J. G. MCKEE, D.V.M.-----Assistant State Veterinarian  
H. B. HOOD, V.M.D.-----Assistant State Veterinarian  
S. M. WITHERSPOON, B.Sc., D.V.M.-----Assistant State Veterinarian  
I. R. COOPER, D.V.M.-----Assistant State Veterinarian  
R. L. WILLIS, D.V.M.-----Assistant State Veterinarian  
WILLIAM GINN, D.V.M.-----Assistant State Veterinarian

---

N. J. Ayers, D.V.M.-----Deputy State Veterinarian, Greer  
W. A. Barnette, B.Sc., D.V.M.-----Deputy State Veterinarian, Greenwood  
M. R. Blackstock, D.V.S.-----Deputy State Veterinarian, Spartanburg  
T. L. Burriss, D.V.M.-----Deputy State Veterinarian, Anderson  
F. P. Caughman, Sr., B.Sc., V.M.D.-----Deputy State Veterinarian, Columbia  
F. P. Caughman, Jr., D.V.M.-----Deputy State Veterinarian, Columbia  
J. T. Dickson, D.V.M.-----Deputy State Veterinarian, Rock Hill  
H. L. Frieze, D.V.M.-----Deputy State Veterinarian, Gaffney  
C. C. Harmon, B.Sc., D.V.M.-----Deputy State Veterinarian, Columbia  
Carlos Helms, D.V.M.-----Deputy State Veterinarian, Darlington  
L. J. Hogan, D.V.M.-----Deputy State Veterinarian, Charleston  
O'Neal Jacobs, D.V.M.-----Deputy State Veterinarian, Laurens  
T. B. Jacobs, D.V.M.-----Deputy State Veterinarian, Newberry  
T. J. Kinard, D.V.M.-----Deputy State Veterinarian, Ninety Six  
Don O. Kitchen, D.V.M.-----Deputy State Veterinarian, Greenville  
F. E. Kitchen, D.V.M.-----Deputy State Veterinarian, Greenville  
G. R. Kitchen, D.V.M.-----Deputy State Veterinarian, Sumter  
W. R. Latta, D.V.M.-----Deputy State Veterinarian, Orangeburg  
G. J. Lawhon, B.Sc., D.V.M.-----Deputy State Veterinarian, Hartsville  
J. S. Lide, D.V.M.-----Deputy State Veterinarian, Newberry  
W. D. McCormack, D.V.M.-----Deputy State Veterinarian, Conway  
B. C. McLean, V.M.D.-----Deputy State Veterinarian, Aiken  
W. K. Magill, B.Sc., D.V.M.-----Deputy State Veterinarian, Chester  
A. S. Moore, D.V.M.-----Deputy State Veterinarian, Walterboro  
J. H. Moore, D.V.M.-----Deputy State Veterinarian, Charleston  
J. H. Morse, V.M.D.-----Deputy State Veterinarian, Sumter  
B. K. McInnes, M.D., V.M.D.-----Deputy State Veterinarian, Charleston  
M. J. Rattray, Jr., D.V.M.-----Deputy State Veterinarian, Anderson  
R. R. Salley, D.V.M.-----Deputy State Veterinarian, Orangeburg  
R. O. Suddath, B.S.A., V.M.D.-----Deputy State Veterinarian, Walhalla  
H. L. Sutherland, D.V.M.-----Deputy State Veterinarian, Union  
B. C. Talley, B.Sc., D.V.M.-----Deputy State Veterinarian, Bennettsville  
E. R. VanDeGrift, Jr., D.V.M.-----Deputy State Veterinarian, Columbia

# AGRICULTURAL EXTENSION STAFF

|                           |                            |
|---------------------------|----------------------------|
| E. W. SIKES, PH.D., LL.D. | President                  |
| D. W. WATKINS, B.S., M.A. | Director                   |
| *T. W. MORGAN, B.S.       | Assistant to the Director  |
| G. C. MEARES, B.S.        | Assistant to the Director  |
| C. M. HALL                | Chief Clerk and Accountant |

## *Agricultural Economics*

|                             |                                                             |
|-----------------------------|-------------------------------------------------------------|
| O. M. Clark, B.S., M.S.     | Extension Economist and Farm Management Specialist, Clemson |
| M. C. Rochester, B.S., M.S. | Farm Management Specialist, Clemson                         |
| P. S. Williamon, B.S.       | Assistant Farm Management Specialist, Clemson               |
| D. C. Sturgis, B.S., M.S.   | Assistant Extension Economist, Clemson                      |
| M. H. Sutherland, B.S.      | Assistant Extension Economist, Clemson                      |
| W. L. Abernathy, B.S.       | Supervisor Test-Demonstration Farms, Clemson                |

## *Agricultural Engineering*

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| C. V. Phagan, B.S.        | Agricultural Engineer, Clemson                  |
| G. H. Stewart, B.S., M.S. | Assistant Agricultural Engineer, Clemson        |
| E. C. Turner, B.S.        | Extension Soil Conservationist, Clemson         |
| M. C. McKenzie, B.S.      | Assistant to the Agricultural Engineer, Clemson |

## *Agronomy*

|                         |                                         |
|-------------------------|-----------------------------------------|
| H. A. Woodle, B.S.      | Agronomist, Clemson                     |
| B. E. G. Prichard, B.S. | Assistant Extension Agronomist, Clemson |
| H. A. McGee             | Tobacco Specialist, Florence            |
| C. G. Peebles, B.S.     | Soils Specialist, Clemson               |

## *Animal Husbandry*

|                           |                                         |
|---------------------------|-----------------------------------------|
| J. R. Hawkins, B.S., M.S. | In Charge Livestock Extension, Columbia |
| A. L. DuRant, B.S., M.S.  | Livestock Specialist, Florence          |

## *Boys' 4-H Club Work*

|                         |                                           |
|-------------------------|-------------------------------------------|
| I. D. Lewis, B.S., M.S. | State Boys' Club Agent, Clemson           |
| L. O. Clayton, B.S.     | Assistant State Boys' Club Agent, Clemson |
| O. R. Smith, B.S.       | Assistant State Boys' Club Agent, Clemson |

## *Dairying*

|                     |                                     |
|---------------------|-------------------------------------|
| C. G. Cushman, B.S. | Dairy Specialist in Charge, Clemson |
| Vance Henry, B.S.   | Dairy Specialist, Clemson           |

## *Entomology and Plant Pathology*

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| W. C. Nettles, B. S., M.S. | Extension Entomologist and Plant Pathologist, Clemson |
| E. S. Prevost              | Specialist in Beekeeping, Clemson                     |

## *Forestry*

|                          |                                       |
|--------------------------|---------------------------------------|
| M. H. Bruner, B.S., M.F. | Extension Forester, Clemson           |
| C. R. Cross, B.S., M.F.  | Assistant Extension Forester, Clemson |

## *Horticulture*

|                        |                                             |
|------------------------|---------------------------------------------|
| E. H. Rawl, B.S., M.S. | Extension Horticulturist in Charge, Clemson |
| A. E. Schilleter, B.S. | Extension Horticulturist, Clemson           |

## *Marketing*

|                     |                                             |
|---------------------|---------------------------------------------|
| G. E. Prince, B.S.  | Chief Marketing Division, Columbia          |
| T. A. Cole, B.S.    | Agent in Marketing, Columbia                |
| E. H. Talbert, B.S. | Specialist in Grading and Packing, Columbia |

## *Poultry*

|                           |                                         |
|---------------------------|-----------------------------------------|
| P. H. Gooding, B.S., M.S. | Extension Poultryman, Clemson           |
| J. W. Matthews, B.S.      | Assistant Extension Poultryman, Clemson |

## *Printing and Distribution of Publications*

|                             |                              |
|-----------------------------|------------------------------|
| A. B. Bryan, B. S., B.Litt. | Agricultural Editor, Clemson |
|-----------------------------|------------------------------|

## *Visual Instruction*

|                     |                                          |
|---------------------|------------------------------------------|
| *T. W. Morgan, B.S. | In Charge of Division, Clemson           |
| C. G. Meares, B.S.  | In Charge of Division, Clemson           |
| L. W. Riley         | Assistant in Visual Instruction, Clemson |

\*On leave.



## DISTRICT AGENTS

|                 |                    |                      |
|-----------------|--------------------|----------------------|
| FIRST DISTRICT  | L. B. Massey, B.S. | Box 266, Spartanburg |
| SECOND DISTRICT | J. T. Lazar, B.S.  | Florence             |
| THIRD DISTRICT  | A. H. Ward, B.S.   | Aiken                |

## COUNTY AGRICULTURAL AGENTS

| <i>County</i> | <i>Name</i>                 | <i>Post Office</i> |
|---------------|-----------------------------|--------------------|
| Abbeville     | Z. D. Robertson, A.B.       | Abbeville          |
| Aiken         | F. W. Corley, B.S.          | Aiken              |
| Allendale     | W. H. Pressly, B.S.         | Allendale          |
| Anderson      | E. P. Josey, B.S.           | Anderson           |
| Bamberg       | W. H. Craven, B.S.          | Bamberg            |
| Barnwell      | H. G. Boylston, B.S.        | Barnwell           |
| Beaufort      | J. E. Youngblood, B.S.      | Beaufort           |
| Berkeley      | J. H. Harvey, B.S.          | Moncks Corner      |
| Calhoun       | Colin McLaurin, B.S.        | St. Matthews       |
| Charleston    | C. W. Carraway, B.S.        | Charleston         |
| Cherokee      | S. C. Stribling, B.S.       | Gaffney            |
| Chester       | M. C. Crain, B.S.           | Chester            |
| Chesterfield  | J. C. Willis, B.S.          | Chesterfield       |
| Clarendon     | F. M. Rast, B.S., M.S.      | Manning            |
| Colleton      | L. W. Alford, B.S.          | Walterboro         |
| Darlington    | J. M. Napier, B.S., M.S.    | Darlington         |
| Dillon        | S. W. Epps, B.S.            | Dillon             |
| Dorchester    | J. M. Lewis, B.S., (Acting) | St. George         |
| Edgefield     | J. F. Jones, B.S.           | Edgefield          |
| Fairfield     | R. H. Lemmon, B.S.          | Winnsboro          |
| Florence      | J. W. McLendon, B.S.        | Florence           |
| Georgetown    | M. M. McCord, B.S.          | Georgetown         |
| Greenville    | W. R. Gray, B.S.            | Greenville         |
| Greenwood     | R. D. Steer, B.S.           | Greenwood          |
| Hampton       | J. C. Anthony, B.S.         | Hampton            |
| Horry         | V. M. Johnston, B.S.        | Conway             |
| Jasper        | J. P. Graham, B.S.          | Ridgeland          |
| Kershaw       | W. C. McCarley, B.S.        | Camden             |
| Lancaster     | F. W. Cannon, B.S.          | Lancaster          |
| Laurens       | C. B. Cannon, B.S.          | Laurens            |
| Lee           | J. C. McComb, B.S.          | Bishopville        |
| Lexington     | R. R. Mellette, B.S.        | Lexington          |
| McCormick     | D. A. Shelley, B.S.         | McCormick          |
| Marion        | W. R. Wells, Jr., B.S.      | Marion             |
| Marlboro      | W. D. Wood, B.S.            | Bennettsville      |
| Newberry      | P. B. Ezell, B.S.           | Newberry           |
| Oconee        | G. H. Griffin, B.S.         | Walhalla           |
| Orangeburg    | R. D. Suber, B.S.           | Orangeburg         |
| Pickens       | T. A. Bowen, B.S.           | Pickens            |
| Richland      | D. R. Hopkins, B.S.         | Columbia           |
| Saluda        | Claude Rothell, B.S.        | Saluda             |
| Spartanburg   | W. H. Stallworth, B.S.      | Spartanburg        |
| Sumter        | J. M. Eleazer, B.S.         | Sumter             |
| Union         | T. B. Lee, B.S.             | Union              |
| Williamsburg  | R. A. Jackson, B.S.         | Kingstree          |
| York          | L. W. Johnson, B.S.         | Rock Hill          |

## ASSISTANT COUNTY AGRICULTURAL AGENTS

---

| <i>County</i>        | <i>Name</i>                  | <i>Post Office</i> |
|----------------------|------------------------------|--------------------|
| Aiken -----          | C. P. Guess, B.S.-----       | Aiken              |
| Anderson -----       | M. A. Bouknight, B.S.-----   | Anderson           |
| Barnwell -----       | H. A. Bowers, B.S.-----      | Barnwell           |
| Chester -----        | D. H. Caughman, B.S.-----    | Chester            |
| Chesterfield -----   | J. M. Jeter, B.S.-----       | Chesterfield       |
| Colleton -----       | D. Richardson, B.S.-----     | Walterboro         |
| Darlington -----     | J. W. Talbert, B.S.-----     | Darlington         |
| Florence -----       | E. B. Baskin, B.S.-----      | Florence           |
| Greenville -----     | J. D. Miller, B.S.-----      | Greenville         |
| Greenwood -----      | T. M. Clyburn, B.S.-----     | Greenwood          |
| Hampton -----        | J. C. King, B.S.-----        | Hampton            |
| Horry -----          | J. C. Shelley, B.S.-----     | Conway             |
| Laurens -----        | T. A. Stallworth, B.S.-----  | Laurens            |
| Newberry -----       | J. L. King, B.S.-----        | Newberry           |
| Orangeburg -----     | E. C. Abrams, B.S.-----      | Orangeburg         |
| Pickens-Oconee ----- | J. R. Wood, B.S.-----        | Pickens            |
| Richland -----       | R. H. Lemmon, Jr., B.S.----- | Columbia           |
| Spartanburg -----    | W. J. Martin, B.S.-----      | Spartanburg        |
| Sumter -----         | T. O. Bowen, B.S.-----       | Sumter             |
| Williamsburg -----   | D. K. Josey, B.S.-----       | Kingstree          |
| York -----           | B. J. Funderburk, B.S.-----  | Rock Hill          |

## NEGRO AGRICULTURAL AGENTS

---

H. E. Daniels, District Agent, State College, Orangeburg, S. C.

| <i>County</i>      | <i>Name</i>             | <i>Post Office</i> |
|--------------------|-------------------------|--------------------|
| Aiken -----        | George T. Dowdy -----   | Aiken              |
| Anderson -----     | J. A. Gresham-----      | Anderson           |
| Bamberg -----      | J. D. Marshall-----     | Bamberg            |
| Beaufort -----     | Benjamin Barnwell ----- | Beaufort           |
| Chester -----      | Waymon Johnson -----    | Chester            |
| Clarendon -----    | Wm. Thompson -----      | Manning            |
| Darlington -----   | S. C. Disher-----       | Darlington         |
| Fairfield -----    | D. G. Belton, Jr.-----  | Winnsboro          |
| Florence -----     | H. S. Person-----       | Florence           |
| Greenville -----   | Robt. W. Anderson-----  | Greenville         |
| Greenwood -----    | L. V. Walker-----       | Greenwood          |
| Marion -----       | R. C. Bacote-----       | Marion             |
| Orangeburg -----   | G. W. Daniels-----      | Orangeburg         |
| Richland -----     | J. E. Dickson-----      | Columbia           |
| Spartanburg -----  | W. C. Bunch-----        | Spartanburg        |
| Sumter -----       | Jason Maloney -----     | Sumter             |
| Union -----        | E. N. Williams-----     | Union              |
| Williamsburg ----- | Van Buren Thomas-----   | Kingstree          |
| York -----         | Booker T. Miller-----   | Rock Hill          |

Note: All negro agents have B.S. Degrees from State College at Orangeburg, or the equivalent from other institutions.

# HOME DEMONSTRATION EXTENSION DEPARTMENT

The United States Department of Agriculture, Clemson College and  
Winthrop College Working in Cooperation

---

LONNY I. LANDRUM, B.S.---State Home Demonstration Agent, Rock Hill  
 HARRIETTE B. LAYTON---Assistant Home Demonstration Agent, Rock Hill  
 BESSIE HARPER, B.A.-----District Agent, Aiken  
 THEODOSIA DARGAN PLOWDEN-----District Agent, Route 3, Sumter  
 JUANITA NEELY, B.A., M.S.-----District Agent, Rock Hill  
 DORA DEE WALKER, B.A.---Production and Conservation Specialist, Appleton  
 HARRIET F. JOHNSON, B.A., B.S., M.A.---State Girl's Club Agent, Rock Hill  
 JANE KETCHEN, B.S.-----Marketing Specialist, Rock Hill  
 ELIZABETH WATSON, B.S.-----Clothing Specialist, Rock Hill  
 MYRA REAGAN, B.A., M.S.-----Extension Nutritionist, Rock Hill  
 ELEANOR CARSON, B.A.-----Poultry Specialist, Rock Hill  
 PORTIA SEABROOK, B.A.-----Home Management Specialist, Rock Hill

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## COUNTY HOME DEMONSTRATION AGENTS

| <i>County</i> | <i>Name</i>                      | <i>Post Office</i> |
|---------------|----------------------------------|--------------------|
| Abbeville     | Elizabeth Herbert, A.B.          | Abbeville          |
| Aiken         | Ann Elizabeth Monroe, B.S.       | Aiken              |
| Allendale     | Mamie Sue Hicks, B.S.            | Allendale          |
| Anderson      | Ella Burton, B.S.                | Anderson           |
| Bamberg       | Marie Lambert, B.S.              | Bamberg            |
| Barnwell      | Elizabeth McNab, A.B.            | Barnwell           |
| Beaufort      | Mary Ellen Eaves, A.B., B.S.     | Beaufort           |
| Berkeley      | Elizabeth D. Boykin, A.B.        | Moncks Corner      |
| Calhoun       | Lula Chriesman                   | St. Matthews       |
| Charleston    | Caroline S. Alston               | Charleston         |
| Cherokee      | Eloise Johnson, B.S.             | Gaffney            |
| Chester       | John'gy Richards, B.S.           | Chester            |
| Chesterfield  | Kerby Tyler                      | Chesterfield       |
| Clarendon     | Carrie Carson, B.S.              | Manning            |
| Colleton      | Isobel Patterson, B.S.           | Walterboro         |
| Darlington    | Emmie J. Evans                   | Darlington         |
| Dillon        | Etta Sue Sellers, B.A.           | Dillon             |
| Dorchester    | Ophelia Barker, B.S.             | St. George         |
| Edgefield     | Laura Mellette, B.S.             | Edgefield          |
| Fairfield     | Lila Moore B.S.                  | Winnsboro          |
| Florence      | Anne Moss Moore, B.S.            | Florence           |
| Florence      | Nancy Hinson, B.S. (Asst. Agent) | Lake City          |
| Georgetown    | Vela Smith, B.S.                 | Georgetown         |
| Greenville    | Julia W. Stebbins                | Greenville         |
| Greenville    | Beatrice Mabry B.S.              | Greenville         |
| Greenwood     | Carolyn Avinger, B.S.            | Greenwood          |
| Hampton       | Izora Miley                      | Hampton            |

|                    |                                           |               |
|--------------------|-------------------------------------------|---------------|
| Horry -----        | Margaret Cloud -----                      | Conway        |
| Jasper -----       | Gertrude Lanham, B.S. -----               | Ridgeland     |
| Kershaw -----      | Margaret Fewell, B.A. -----               | Camden        |
| Lancaster -----    | Jennie Robinson, B.S. -----               | Lancaster     |
| Laurens -----      | Jennie E. Coleman -----                   | Laurens       |
| Lee -----          | Sallie Pearce -----                       | Bishopville   |
| Lexington -----    | Mattie Lee Cooley, A. B., B.S. -----      | Lexington     |
| McCormick -----    | Matilda Bell, B.S. -----                  | McCormick     |
| Marion -----       | Hazel Smith, B.S. -----                   | Marion        |
| Marlboro -----     | Janie McDill, B.A., B.S. -----            | Bennettsville |
| Newberry -----     | Ethel Counts, B.A. -----                  | Newberry      |
| Oconee -----       | Mary C. Haynie, B.A. -----                | Walhalla      |
| Orangeburg -----   | Louise Fleming -----                      | Orangeburg    |
| Orangeburg -----   | Huldah Pearson, B.S. (Asst. Agent) -----  | Orangeburg    |
| Pickens -----      | Sarah G. Cureton, B.S. -----              | Pickens       |
| Richland -----     | Winnie Belle Holden, B.A. -----           | Columbia      |
| Saluda -----       | Pearle Calvert -----                      | Saluda        |
| Spartanburg -----  | Kate M. Hooper -----                      | Spartanburg   |
| Sumter -----       | Jean Reid, B.S. -----                     | Sumter        |
| Sumter -----       | Mary E. Wright, B.S. (Ass't. Agent) ----- | Sumter        |
| Union -----        | Mahala J. Smith -----                     | Union         |
| Williamsburg ----- | Laura Conner, B.S. -----                  | Kingstree     |
| York -----         | Margaret Martin, B.S. -----               | Rock Hill     |

## NEGRO HOME DEMONSTRATION AGENTS

Marion B. Paul, State Supervisor Negro Home Demonstration Work,  
State College, Orangeburg, S. C.

| <i>County</i>     | <i>Negro Agents' Names</i>        | <i>Address</i> |
|-------------------|-----------------------------------|----------------|
| Aiken -----       | Mabel L. Skelton -----            | Aiken          |
| Allendale -----   | Rosa Reed -----                   | Allendale      |
| Beaufort -----    | Willie Mabel Price -----          | Frogmore       |
| Beaufort -----    | Gladys Hurley (Asst. Agent) ----- | Frogmore       |
| Charleston -----  | Albertha DeVeaux -----            | Charleston     |
| Dorchester -----  | Mattie E. Overstreet -----        | St. George     |
| Florence -----    | Lillian Brown -----               | Florence       |
| Georgetown -----  | Rosa G. Gadsden -----             | Georgetown     |
| Greenville -----  | Delphenia Wilkerson -----         | Greenville     |
| Kershaw -----     | Susie Bivens -----                | Camden         |
| Marlboro -----    | Minnie Gandy -----                | Clio           |
| Newberry -----    | Laura Manney -----                | Newberry       |
| Orangeburg -----  | Dollis E. Simpson -----           | Orangeburg     |
| Richland -----    | Frances Thomas -----              | Columbia       |
| Spartanburg ----- | Ethel Taggart -----               | Spartanburg    |
| Sumter -----      | Janie Rucker -----                | Sumter         |

Note: All negro Home Demonstration Agents have had college training in home economics.



## PART II—INFORMATION

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### REQUIREMENTS FOR ADMISSION

*General.* All applicants for admission to Clemson College must be at least sixteen years of age and at the time of entrance must be free from contagious or infectious disease. A certificate of good moral character and honorable discharge from the last school attended is required. A reservation fee of \$5.00 is required of both old and new students. This fee must accompany the "Matriculation Card" which is sent all students who have met the requirements for enrollment in the College.

*Application Blanks.* Blanks to be used in applying for admission may be obtained from the Registrar, Clemson College, Clemson, South Carolina.

*Admission by Certificate.* Graduates from accredited high schools who have completed at least sixteen standard high-school units, including three units in English, two and one-half in mathematics, and one in history, are admitted to the freshman class without examination. A complete statement of the applicant's high-school record must be submitted by the high-school principal on the regular application blank. If he has attended another college, a transcript of that record and a statement of honorable discharge must be submitted.

*Admission by Examination.* Students who do not meet the requirements given above may be admitted to the college by passing the entrance examinations.

*Admission by Certificate and Examination.* Applicants who are not graduates of accredited high schools, but who can give acceptable documentary evidence of having completed the equivalent of a high-school course under formal instruction, will be required to pass examinations on English, mathematics, and history.

*Admission to Advanced Standing.* Work that has been taken in other colleges will be credited for an equivalent amount of work so far as it applies to any course offered in the College. The applicant must present: (a) a letter of honorable dismissal from the institution last attended, and (b) an official transcript of his record, including entrance credits. College credits given by transfer are provisional and may be cancelled at any time if the student's work is unsatisfactory. A student coming from another institution must spend at least one regular session in the College before he is eligible to apply for a degree.

*Matriculation.* Students upon arrival at the College at the opening of the session must report at once to the Registrar's Office. New students will be directed in the procedure necessary to complete their enrollment. A student's matriculation with the College is equivalent to his pledge to conform to the rules of the institution. Any admission gained or matriculation made irregularly is subject to cancellation.

## EXPENSES

*Settlement of College Fees.* The Treasurer of the College is the financial officer and all transactions relating to payments must be conducted through him. The first quarterly payment must be made before a student can be assigned to a room in barracks or permitted to begin work. Remittances should be made in cash, money order, cashier's check, or by local check *made payable to S. W. Evans, Treasurer. All remittances made by mail must be addressed to: The Treasurer, Clemson College, Clemson, S. C.* A personal check which is given in payment of dues and is returned by the bank unpaid automatically cancels a student's reservation and automatically drops from class rolls a student who is in school.

*Expenses:* Considering the standard of living and quality of instruction, Clemson is one of the most economical colleges in the country. Based on conditions in 1939-1940 the cost to South Carolina students for board, laundry, room, hospital, other fees, and tuition (but not uniform) is \$310.55 for the session. The

legal residence of the parent, or guardian, determines the tuition status of the student. Students from other states pay \$200.00 for non resident tuition. This is \$140.00 in addition to the \$60.00 paid by South Carolina students. The Treasurer is required to collect in full the amounts due on dates specified. The expenses are due in four installments as indicated below.

*Uniform:* The total cost of complete new uniform required for Freshmen, or new students, for 1939-1940 was \$69.10. Students in upper classes use serviceable uniform articles on hand. The cost of uniform for upperclassmen for the 1939-1940 session was \$19.04.

The payments at entrance to cover board, laundry, room, hospital, other fees, tuition, and *uniform* for first quarter of session 1939-1940 were as follows:

|                      | South Carolina | Non Resident |
|----------------------|----------------|--------------|
| <i>First Quarter</i> | Students       | Students     |
| New Students -----   | \$154.65       | \$189.65     |
| Old Students -----   | 104.59         | 139.59       |

Subsequent payments for students in all classes were due according to the following schedule:

|                |                   | South Carolina | Non Resident |
|----------------|-------------------|----------------|--------------|
| Payment        | Date Due          | Students       | Students     |
| Second Quarter | November 23, 1939 | \$75.00        | \$110.00     |
| Third Quarter  | February 5, 1940  | 75.00          | 110.00       |
| Fourth Quarter | April 5, 1940     | 75.00          | 110.00       |

Any uniform allowance made to R. O. T. C. students by the Federal Government will be credited to the individual's dues for the Fourth Quarter, when the full amount of the com-

mutation is received by the College. All other R. O. T. C. payments are made by the Government directly to the student.

*Note:* The expenses given above are for regular cadets who live in the dormitories. Under certain regulations, and with the approval of the President, a student may become a Day Cadet or Day Student. A Day Cadet is a member of the corps who rooms and boards outside of barracks. A Day Student is a member of the student body who is not a member of the cadet corps.

*Refunds:* Refunds will be made under the following rules:

1. A refund of *all* moneys, except matriculation fee of \$3.00 and \$1.00 per day for board, etc., will be made for a student who withdraws from College within ten days of the date of his matriculation, with the provision that the refund for uniform cannot be guaranteed for items tailored to individual measure.

2. A refund of moneys collected for board, laundry, and barracks heat, light, and water at the rates charged will be made for a student who withdraws subsequent to the first ten days after matriculation. This also applies to interruptions exceeding fifteen days, not including holiday periods.

3. A refund of moneys collected for uniform will be made for a student who withdraws from College on articles issued to him and returned unused, except garments tailored to measure; and on articles for which he has paid for but which have not been issued to him, except articles tailored to measure which are in process of manufacture.

4. A refund for a student will be made to his parents, or guardian, except that for uniform cancellation approved by the Commandant, which refund will be made direct to the student.

5. The College will not be liable for articles lost or stolen in the barracks.



6. The College will not be liable for lost or damaged laundry unless reported within two days after the date upon which the laundry was due to be delivered, and then not more than the actual depreciated value of such articles as have been lost or damaged.

*Student Banking Accounts.* For the conveniences of students the College operates a banking department in the Treasurer's office where money can be deposited and withdrawn as the occasion may demand. This service is purely local. Students are urged to deposit their money in the bank and not to keep it in their rooms.

*Books and Supplies.* The L. C. Martin Drug Co., Inc., conducts a store near the campus and maintains a book and supply store where students may purchase textbooks, drawing instruments, and other supplies. A complete list of the textbooks used in each course, together with their prices will be furnished on application to the book store.

Each student will be required to own his textbooks and necessary equipment. All students shall submit their textbooks and other equipment for inspection at such times as are ordered.

*Optional Expenses.* It is not possible to give an estimate of a student's expenditures for such amusements as dancing, moving pictures, etc. This depends largely upon the disposition of the young man. The College endeavors to reduce to a minimum the temptation to spend money needlessly, but the authorities cannot be responsible for a student's private expenditures. This must be a matter between him and his parents.

*Transcripts.* Transcripts of scholastic records are not issued to students who have not been graduated. However, a transcript will be sent to any institution or other recognized rating agency upon request. One transcript is furnished free; additional copies are issued for one dollar each. Remittances for transcripts should be made payable to The Treasurer, Clemson

College, but should accompany transcript requests and should be mailed to The Registrar.

*Student Aids.* There are few opportunities for students to earn money at Clemson by working in their spare time. In an agricultural and mechanical college most of the student's time when he is not in the classroom is occupied in laboratories, shops, and field work. A number of young men secure positions as waiters in the mess hall, for which service they are paid at the rate of about eight dollars a month. These positions are filled by the Mess Officer, to whom all correspondence should be addressed. In addition to this help, membership in the Reserve Officers Training Corps entitles freshmen and sophomores to a small commutation on uniforms. Juniors and seniors receive also a ration commutation.

### LOAN FUNDS

*John Bryce Baskin Fund.* Interest on \$2,000 given by Cecil L. Reid, of the Class of 1902, as an appreciation of the aid given him by Mr. Baskin. This fund is "available to any resident of South Carolina but if all other things are equal, preference is to be given the boy or boys from York or Newberry Counties, South Carolina."

*The William Wilson Finley Loan Fund.* The sum of \$1,000 has been deposited with the College to be used as a loan fund to students living in counties traversed by the Southern Railway or the Blue Ridge Railway.

*The George Cherry Foundation.* Mrs. Mary Cherry Doyle has donated \$1,000 to aid worthy and needy students from Oconee County and that part of Anderson County including Pendleton. This fund is not available for first-year students.

*The U. D. C. Loan Fund.* The John C. Calhoun Chapter of the U. D. C. has created a fund of \$500.00 to be loaned to lineal

descendants of the Confederate veterans. This fund is limited to juniors and seniors.

*Clemson Student Loan Association Fund.* In the spring of 1930 President Sikes invited a number of interested teachers, officers, alumni, and friends of Clemson College to meet for the purpose of raising funds to be loaned to worthy Clemson students who were already in college. Many responded. Officers were elected; a constitution and by-laws adopted. Twelve hundred dollars has already been realized through gifts and annual membership dues, which are five dollars per year. There are seventy-six members. Anyone desiring to assist young men in this way should communicate with Mr. W. K. Livingston, Greenville, S. C., who is president of the organization, or Mr. J. C. Littlejohn, Business Manager, Clemson, S. C.

The College is in need of funds to lend worthy students. Donations for this or other purposes may be made to the Board of Trustees of Clemson College, or to the Trustees of the Clemson Alumni Foundation. The President of the College or the Secretary of the boards named above will be glad to communicate with any person who is interested in establishing such a fund.

### ANDERSON FELLOWSHIP

*The Alexander P. Anderson and the Lydia Anderson Fellowship.* Mr. and Mrs. Anderson have given to the Clemson Agricultural College the sum of \$10,000 for the purpose of establishing a fellowship fund. The income from this trust fund is to be used for the purpose of awarding a scholarship or fellowship to one or more Clemson graduates for advanced work in biological sciences including bacteriology and entomology. The scholarship is to be awarded annually by the faculty of the Clemson Agricultural College to an outstanding student. The name of the beneficiary is reported to the Board of Trustees, and an accounting of the funds by the Treasurer of the College is made annually.

*SEARS ROEBUCK SCHOLARSHIPS*

*The Sears Roebuck Agricultural Foundation* has made available for freshman agricultural scholarships at Clemson the sum of \$2500 for the 1937-1938 session, \$2250 for the 1938-1939 session, and \$2250 for the 1939-1940 session of the College.

*BUILDINGS AND GROUNDS*

*Buildings.* The Administration Building houses the offices of the President, the Registrar, the Commandant, the Treasurer, the Business Manager, the Professor of Military Science and Tactics, and the Dean of the School of General Science. This building also has over twenty classrooms. At the north end of the building is Memorial Hall, the College Auditorium, with a seating capacity of about eighteen hundred.

The Library Building houses the main library of the college and the experiment station library. There are in the library approximately twenty-six thousand books and twenty-two thousand bound volumes of periodicals, experiment station bulletins, and government publications. The departmental libraries also contain a number of volumes pertaining especially to the work of the department concerned.

The instructional work of the institution is maintained largely in the departmental buildings. The Schools of Agriculture, Engineering, Textiles, Vocational Education, and Chemistry have individual buildings especially designed for their purposes. The School of General Science is located in the Administration Building. Certain laboratory work is conducted at the greenhouses, live stock barns, poultry plant, veterinary hospital, and other buildings on the college farm.

The cadet barracks consist of eight large brick buildings—five of which were constructed since 1935. All barracks are steam-heated, electrically-lighted, and supplied with hot and cold water. The eight hundred and fourteen rooms in the barracks



are furnished with single-width iron cots and other necessary equipment.

The Hospital, located about a quarter of a mile from the barracks, is a wooden building, especially designed for the purpose. The equipment includes a Victor X-ray machine, a new Burdick ultra-violet ray machine, and a sorenson machine of the latest design for ear, eye, nose, and throat treatments.

The Y. M. C. A. building is a four-story structure equipped with club rooms, lounge rooms, game rooms, and has in addition, thirty rooms available for permanent roomers, guests, and transients. Having an auditorium, gymnasium, and swimming pool, the Y. M. C. A. building is admirably fitted to serve as the center of social activities and voluntary religious work.

The Physical Education Building at present consists of the Field House and the Gymnasium. Construction of the Alumni section which is to be a part of the Physical Education plant, has been begun.

The Laundry, which is operated exclusively for the students, is a brick building, equipped with improved modern machinery.

The Clemson College Hotel, a frame building, is situated on a hill overlooking the campus. This building and numerous brick and frame residences furnish homes for a number of the college teachers and officers.

Fort Hill, the former home of John C. Calhoun, is located on the Clemson campus. In accordance with the provisions of Mr. Clemson's will, this residence has been made a shrine in honor of Mr. Calhoun. Several pieces of furniture and other interesting relics, formerly the property of Mr. Calhoun, are carefully preserved in this home, where they may be seen by visitors to the college.

*Grounds.* The college grounds comprise about 1,544 acres, including the campus, the farm, and the Experiment Station grounds. The two-hundred acre campus is laid out in walks, drives, and lawns, and is shaded by a beautiful grove of native forest trees.

### *LIVING CONDITIONS*

At Clemson students live in barracks under military discipline. A student must at all times be present or accounted for. The barracks or dormitories are divided into "halls" for military purposes, a unit being assigned to a hall under the supervision of a cadet officer.

Cadet officers remain on duty both day and night at the guard room, in which is located a long-distance telephone with twenty-four hour service.

Each student room is equipped with necessary furniture. The beds are single width. Bed linen, bed covers, pillows, and towels must be furnished by the students.

All students are required to provide themselves with two mattress covers and two clothes bags. These are regulation articles and can be secured only at the College. One set will likely serve for use during the four years.

The dining hall, or mess hall, is located in Barracks No. 1. It is well equipped and is under the supervision of the mess officer. The kitchen and cold storage plant are among the best in the South. All students living in the barracks eat in the dining hall.

### *RESERVE OFFICERS' TRAINING CORPS*

Under the provisions of the National Defense Act, the War Department has established at Clemson College an infantry unit of the Reserve Officers' Training Corps. All students of

the College, unless excused by the President, are required to take a minimum of three hours per week of military training. To be admitted to membership in the corps and to receive the privileges connected therewith, juniors and seniors must be recommended by the President and the Professor of Military Science and Tactics. All members at the completion of the junior class will be required to attend a summer camp, where their expenses will be paid by the Federal Government. After graduation the student may upon the recommendation of his instructors receive a commission in the Officers' Reserve Corps.

### *STUDENT HEALTH SERVICE*

The Surgeon, who has complete charge of the hospital, is one of the regular officers of the College, and his special duty is to look after the health of the students.

At a specified time every day, students who desire may consult the Surgeon, and those who are admitted to the hospital are cared for by experienced nurses in the college hospital. In case of necessity students are allowed to consult the Surgeon at any time, or to send for him in an emergency.

The Surgeon cannot undertake to notify parents every time a student reports to the hospital for medicine, or for rest on account of some slight complaint. However, they may rest assured that they will be notified at once of sickness of any consequence.

The medical fee paid by each student is intended to cover all ordinary cases of sickness and their treatment. It is not intended to cover fees of doctors or specialists called into consultation, for performing operations, for special nurses, or for any medical or surgical attentions performed away from the College; and the College does not assume any responsibility for accidents that happen away from the College. Such expenses must be borne by the parents. The right of the College Surgeon, with the approval of the President of the College, to incur in

behalf of any student under his case any of these extra services is hereby expressly reserved.

Intramural athletics are encouraged and sponsored by the physical education department and the Y. M. C. A. The various companies under the military organization have teams in such sports as volley ball, basketball, baseball, and soccer. These competitive games have drawn much interest and enthusiasm. At Clemson about two-thirds of the student body participate at one time or another in some intramural sport. Participation is voluntary, but the majority of the students take advantage of the opportunity for wholesome recreation and physical development.

### *RELIGIOUS INFLUENCES*

Clemson cooperates with the various churches and the Young Men's Christian Association in the religious training of its students. Denominations not having churches in the community have facilities provided in the Y. M. C. A. building for their services.

Five denominations: Baptist, Episcopal, Methodist, Presbyterian, and Roman Catholic, have erected churches in the community. Arrangements are made for services for students of other denominations. Sunday schools and young people's church societies are maintained by the local churches. Attendance upon the services of these organizations is voluntary.

Courses in Religion, which are credited as free electives, are offered. This work is not financed by the College. For information regarding these courses see the description of courses.

### *HISTORICAL STATEMENT*

In 1889, the General Assembly of South Carolina accepted the bequest of Thomas G. Clemson, which set aside the bulk



of the Clemson estate for the founding of a scientific and technical college. The institution was also established under the Morrill Land-Grant Act passed by the National Congress in 1862. Clemson College, therefore, is the Agricultural and Mechanical College of South Carolina and is a member of the national system of Land-Grant Colleges and Universities.

The nature of the institution is outlined in Mr. Clemson's will and its acceptance by the legislature.

The will in part reads:

"Feeling a great sympathy for the farmers of this State, and the difficulties with which they have to contend in their efforts to establish the business of agriculture upon a proper basis, and believing that there can be no permanent improvement in agriculture without a knowledge of those sciences which pertain particularly thereto, I have determined to devote the bulk of my property to the establishment of an Agricultural College upon the Fort Hill Place. My purpose is to establish an Agricultural College which will afford useful information to the farmers and mechanics; therefore it should afford thorough instruction in agriculture and the natural sciences connected therewith; it should combine, if practicable, physical with intellectual education; and should be a high seminary of learning in which the graduate of the common schools can commence, pursue and finish a course of studies terminating in thorough theoretic and practical instruction in those sciences and arts which bear directly upon agriculture. \* \* \* \* but to always bear in mind that the benefits herein sought to be bestowed are intended to benefit agriculture and mechanical industries. \* \* \* \* I trust I do not exaggerate the importance of such an institution for developing the material resources of the State, by affording its youth the advantages of scientific culture.

"The desire to establish such a school or college as I have provided for in my said last will and testament, has existed

with me for many years past, and many years ago I determined to devote the bulk of my property to the establishment of an Agricultural School or College. To accomplish this purpose is now the one great desire of my life."

This will gave all that part of the Fort Hill Estate inherited by Mrs. Clemson from her mother and the bulk of Mr. Clemson's other real and personal property. The latter amounted to a sum, which, considering the purchasing power at the time, probably has been only a few times exceeded in a public benefaction in South Carolina.

A Board of Trustees of seven members was provided for: R. W. Simpson, D. K. Norris, M. L. Donaldson, R. E. Bowen, B. R. Tillman, J. E. Wannamaker, and J. E. Bradley, who with those chosen by the General Assembly should constitute a governing board in case the State accepted the bequest; but, who, in case the State declined the bequest, should alone constitute a governing board for a private institution.

These seven trustees, along with other friends of the movement, and the agricultural groups in the State developed and organized a public opinion favorable to the plan.

In November, 1889, the General Assembly of South Carolina accepted the terms of the will, and, following the decision of the United States Supreme Court to uphold the will, the State of South Carolina and the full Board of Trustees proceeded to convert the dream of Thomas G. Clemson into the reality of Clemson College.

The College was formally opened in July, 1893, with an enrollment of 446 students. The first graduating exercises were held in December, 1896, with a graduating class numbering thirty-six—fifteen in the agricultural courses and twenty-one in the engineering courses.

|                                                       | 1938-1939 | Total  |
|-------------------------------------------------------|-----------|--------|
| ENROLLMENT—REGULAR SESSION -----                      | 2,150     | 17,310 |
| <i>Graduates by Courses:</i>                          |           |        |
| Agriculture -----                                     | 53        | 1,849  |
| Agricultural Engineering -----                        | 7         | 47     |
| Architecture -----                                    | 10        | 148    |
| Bachelor of Science -----                             | 0         | 1      |
| Chemical Engineering -----                            | 5         | 19     |
| Chemistry -----                                       | 9         | 164    |
| Civil Engineering -----                               | 14        | 368    |
| Education -----                                       | 2         | 6      |
| Electrical Engineering -----                          | 21        | 472    |
| General Science -----                                 | 41        | 303    |
| Industrial Education (Including Engr. Ind. Ed.) ----- | 12        | 109    |
| Mechanical Engineering -----                          | 18        | 225    |
| Mechanical Electrical Engineering -----               | 0         | 528    |
| Textile Chemistry -----                               | 8         | 95     |
| Textile Engineering -----                             | 32        | 433    |
| Textile Industrial Education -----                    | 0         | 79     |
| Vocational Agricultural Education -----               | 47        | 157    |
| Weaving and Designing -----                           | 3         | 29     |
|                                                       | 282       | 5,032  |

### LOCATION

The College is located on the Fort Hill homestead of John C. Calhoun, in the picturesque foothills of the Blue Ridge. It has an elevation of 800 feet above sea level and commands an excellent view of the mountains to the north and west, some of which attain an altitude of over five thousand feet.

The College is located at Clemson, S. C., which is one mile from Calhoun, a town on the main line of the Southern Railway, and four miles from Pendleton, on the Blue Ridge Railway. State Highways number 13 and 24 pass through Clemson, and daily bus service at regular intervals is available.

### CLEMSON COLLEGE ALUMNI CORPORATION

The Alumni Corporation has established a permanent office on the campus. The office is in charge of a secretary, who is elected by the Board of Directors of the Corporation. The

Clemson office is a clearing house for all matters concerning the alumni. In addition to keeping accurate records of addresses and information concerning alumni, the Corporation has established at the Clemson headquarters, a bureau for repairing Clemson class rings, and for securing duplicates of these rings.

The Corporation holds its regular annual meeting at the College on Saturday of Commencement. At this meeting all officers are elected. The Secretary is elected by the Board of Directors which is in turn responsible to the general Corporation for the conduct of its business. The purpose of the Alumni Corporation is to serve the College and the alumni in every possible way. All correspondence regarding its affairs is conducted through the Clemson office.

Graduates and former students are requested to keep the Alumni Office informed as to changes of address, occupation, and other matters that will be of interest to those in charge of Alumni Records and mailing lists.



## PART III—STUDENT LIFE AND ACTIVITIES

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### *CADET MILITARY ORGANIZATION*

Clemson College is operated as a military school,—not for the purpose of making soldiers, but in order that the students may learn the importance of loyalty and obedience to authority, and acquire the habit of being courteous, systematic, and punctual.

The military system places every student on an equal standing. All cadets wear the uniform, live under the same conditions, and are subject to the same privileges and restraints.

The military system does not in any way interfere with the regular college work, but on the other hand enables it to maintain a higher level of efficiency. Military training is a feature that gives to Clemson's graduates an advantage which is an important factor in their future progress and success.

### *CLUBS AND SOCIETIES*

*Honor Fraternities.* Honor scholarship organizations, including Tau Beta Pi, Sigma Tau Epsilon, Phi Psi, Alpha Zeta, Alpha Tau Alpha, and Iota Lambda Sigma, give recognition to superior work done by Engineering, General Science, Textile, Agricultural, Agricultural Education, and Industrial Education students respectively.

The honor society of Phi Kappa Phi has a chapter at Clemson.

The military activities of the cadet officers of the corps are recognized in membership in the Society of Scabbard and Blade, a national military honor fraternity.

The Blue Key, a national fraternity based upon leadership, has a chapter at Clemson.

*Student Clubs.* Students majoring in various courses of instruction have organized clubs. Among such clubs are in-

cluded the Agricultural Economics Club, the Dairy Club, the Horticultural Club, the Minaret Club (an architectural organization), the Athanor (a chemical society), and Iota Epsilon (Industrial Education).

Two literary societies, the Calhoun and the Palmetto, furnish a valuable supplement to scholastic work.

*Engineering Societies.* Outstanding students majoring in engineering courses are selected for membership in the Student Chapter of the American Institute of Electrical Engineers, American Society of Mechanical Engineers, and the American Society of Civil Engineers.

### *THE YOUNG MEN'S CHRISTIAN ASSOCIATION*

The Y. M. C. A. at Clemson is a composite of a Student Y. M. C. A., a City Y. M. C. A., a Community Building, and a Student Union. Hundreds of basketball and volley ball games are participated in by students, faculty, and campus children. Approximately a hundred social functions sponsored by the Y. M. C. A., or with the Y. M. C. A. cooperating, are held in the building during the year. Evening Watch Prayer groups and Bible discussion groups meet regularly on each company hall. More than half of the students take part in these meetings, with approximately forty faculty men assisting in leadership.

The Young Men's Christian Association has supervision of voluntary religious activities of the students and endeavors to contribute to the religious, social, and physical life of the college community.

There are two vesper services in the Y. M. C. A. Auditorium each Sunday attended by approximately 900 students and campus folk. Local and visiting speakers and delegations from other colleges speak at these services.

## ATHLETICS

It is the policy of the College to sanction and encourage athletics so long as participation does not interfere with studies and other duties. Football, baseball, basketball, and track are the most popular sports. The College is a member of the Southern Conference and of the South Carolina Intercollegiate Athletic Association.

*Intercollegiate Athletics.* For the regulation of intercollegiate athletics, the faculty has adopted the following rules:

1. At the end of each grading period, the faculty athletic committee will canvass the records of athletes; and if any are found to be so deficient as to endanger their scholastic standing, they will be withdrawn from the squad.

2. In order to participate in intercollegiate contests, each athletic team may be allowed a maximum absence of ten days during the session (Saturday afternoon, Sunday and holidays not to be included). No one contestant or representative shall be allowed to leave the campus for more than twenty days during the session, except at the discretion of the faculty athletic committee.

3. No member of an athletic team shall be eligible for a managerial position in any other branch of sport.

4. No team shall be allowed to leave the college grounds to participate in any match game unless accompanied by an authorized coach or other member of the faculty, who shall be responsible to the college for the conduct of the players while away.

5. No student shall be eligible to participate in an intercollegiate contest who is away from the College without proper authority or without having complied with all the rules or orders issued by the President regarding such matters.

6. It shall be the duty of the faculty athletic committee to see that the foregoing rules and regulations are strictly enforced.

### MEDALS AND HONORS

*Trustees' Medal.* The Board of Trustees has provided for a gold medal to be awarded annually at Commencement to the best speaker among the representatives of the literary societies. The medal was not given in 1939.

*Norris Medal.* The following is from the will of Hon. D. K. Norris, a life trustee of Clemson, who died in 1905:

"I give \$500 face value, Norris Cotton Mill stock . . . on condition the dividend thereon shall be applied annually to the purchase of a gold medal, to be known as the 'Norris Medal,' to be awarded to the student of Clemson meriting the same at graduation, under such rules and conditions as may be prescribed by the said Board of Trustees, and which medal shall have engraved on it 'Honor habet onus' (Honor brings responsibility)."

In 1939 the medal was awarded to Cadet T. R. Bainbridge, Savannah, Georgia.

*R. W. Simpson Medal.* A medal designated as the "R. W. Simpson Medal" is awarded annually to the best drilled cadet in the freshman, sophomore, or junior class. In 1939 the medal was awarded to Cadet Nicholas DeMai, Rocky Mount, North Carolina.

*Arnold R. Boyd English Honor Key.* Arnold R. Boyd, '14, now a lawyer in New York, donates this Honor Key annually to the student in the graduating class who makes the highest average in English during his college course. In 1939 this key was awarded to Cadet Frampton Wyman Durban, Aiken, South Carolina.



*Architect's Medal.* The South Carolina Chapter of the American Institute of Architects each year awards a medal to the outstanding junior or senior in Architecture. In 1939 the medal was awarded to Cadet Abel Hugh Chapman, Spartanburg, South Carolina.

*Farmers' Certificate of Merit.* Beginning with the session of 1914-1915 certificates of merit have at times been awarded to two farmers in South Carolina who have rendered distinguished service in the agricultural development of the State. In 1939 these certificates were awarded to Mr. Edward Eugene Chapman of Greenville, and Mr. Richard Hovey Edwards of Varnville.

*National Association of Cotton Manufacturers Medal.* For several years this medal has been awarded to the outstanding graduate in Textile Engineering. In 1939 the medal was won by Cadet Joseph Gordon Smith, Clearwater, South Carolina.

*Textile Colorist Prize.* This award for the best work done in Textile Chemistry and Dyeing by a member of the graduating class was won in 1939 by Jacob K. Smith of Patterson, New Jersey.

*Award by the Faculty of the School of Agriculture.* This award to the agricultural graduate having the highest scholastic record for four years was won in 1939 by Roy James Ferree, Campobello, South Carolina.

*Anderson Fellowship.* This fellowship, which provides the sum of \$400.00 for pursuing graduate study, was awarded in 1939 to Henry M. Covington, Bennettsville, South Carolina.

*Clemson Foundation Award.* This award of \$50.00 by the Clemson Foundation to an undergraduate who is attending Clemson largely through his own efforts and whose scholastic record is good was won in 1939 by Harvey E. Ferguson, McCormick, South Carolina.

*South Carolina Reserve Officer's Association Medal.* This medal awarded to the outstanding R. O. T. C. cadet in the Junior Class was won in 1939 by Karl William Kolb, Savannah, Georgia.

## PART IV—ORGANIZATION AND GOVERNMENT

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### ADMINISTRATIVE ORGANIZATION

*Board of Trustees.* The government of the College is vested in a Board of thirteen members, six of whom are elected by the Legislature, and seven life and self-perpetuating under the Clemson will. The function of this Board is legislative and not executive. The Board determines the general policy of the College, makes the laws for its government, and directs the expenditure of its funds.

*The President* is the chief executive and administrative officer of the Board of Trustees. He is the the head of the College and is responsible for its satisfactory working and success.

*The College* is divided into schools of Agriculture, Chemistry, Engineering, General Science, Textiles, and Vocational Education. A dean is at the head of each school and is responsible to the President for its conduct and success. The schools are comprised of departments. Each department is in charge of a professor who acts as its head. The President conducts all official business with each department through its dean.

*The Faculty* consists of all officers of instruction in the College. The voting members are the deans, professors, associate professors, and assistant professors.

The faculty meets at least once a month, or whenever called by the President, and is an advisory body to the President, on the instructional work of the College and such other business as he may bring before it.

The deans and directors of the various schools and departments meet weekly or when called by the President for consideration of matters affecting the welfare of the College. Departmental faculty meetings are held periodically.

*Faculty Committees.* In order to aid him in his executive duties and to carry on the instructional work of the College, the President appoints committees from the faculty. To these are assigned certain specified lines of work and the committees are clothed with full authority.

*The Discipline Committee.* The Discipline Committee is composed of the six deans of the schools and two full professors elected annually by the Board of Trustees. This committee constitutes the court of the College and tries cadets charged with serious offenses under the regulations. The President is the reviewing authority of the Discipline Committee, and may at his discretion set aside or modify the sentences imposed. A parent, or a cadet over age, has the right to appeal from the sentence of the Discipline Committee to the Board of Trustees, provided the appeal is lodged with the President of the College within thirty days. This appeal must be forwarded to the President of the Board of Trustees, who, if he deems the appeal meritorious, shall present it at the next regular or called meeting of the Board.

All trials by the Discipline Committee are open to the public and all testimony is taken under oath and recorded stenographically as is in a civil court. A student on trial may have some member of the faculty to assist him in his defense if he so desires.

## MILITARY ORGANIZATION

*The President.* The President of the College shall have general command and government of the institution, watching over its administration, discipline, and instruction. He shall have authority to make rules from time to time, governing the granting of permits and furloughs to cadets; to inspect anything in a cadet's room or personal baggage; to suspend or modify these regulations, or to publish special regulations when he considers it necessary, which shall have the authority of the Board of Trustees until they shall act on the same. He shall prescribe the hours of study, drill, and recreation.

*Commandant.* The Commandant of Cadets, under the President, has supervision of the discipline of the Corps of Cadets. He shall prescribe the order in which the furniture, bedding, books, clothing, equipment, etc., shall be arranged throughout the barracks and shall make a thorough inspection of the rooms, furniture, arms, equipment and uniforms of the cadets at least once each week. He shall have the right to inspect anything in a cadet's room or personal baggage. He shall perform such other duties as are prescribed in the regulations. He shall have the rank of Colonel.

*Assistant Commandants.* The Assistant Commandants shall perform such duties as may be prescribed for them by the President or Commandant.

*Military Instruction.* All students, excepting such students as are excused by the President, must take a minimum of three hours military instruction per week. All who pass the required physical examination must take the Basic Course prescribed by the War Department for the R. O. T. C. during their freshman and sophomore years.

Members of the junior and senior classes are selected by the Professor of Military Science and Tactics, subject to the approval of the President, to take the Advanced Course prescribed for the R. O. T. C., receiving certain financial benefits allowed by the Federal Government.

*Cadet Officers and Non-commissioned Officers.* The cadet officers and non-commissioned officers are appointed by the Professor of Military Science and Tactics, subject to the approval of the President. When practicable they shall be appointed from members of the R. O. T. C. who have been most studious and soldier-like in the performance of their duties and most exemplary in their conduct. No cadet may decline any office to which he may be appointed.

As a rule the officers shall be appointed from the senior class, the non-commissioned officers, except corporals, from the junior class, and the corporals from the sophomore class.



*Study Hours.* Study hours are those parts of the day which are designated for study and shall be prescribed in orders. All hours at which a student has no classes or other duties may be used as study hours and students are expected to use vacant hours during the day as well as the study period after supper for study.

*Class Attendance.* Punctuality in the attendance of classes and other prescribed duties is required at Clemson College. However, to allow for personal emergencies, a limited number of class absences is allowed, under the provisions of the class attendance regulations.

*Furloughs.* Every cadet is responsible for his class absences whether he is on a furlough or at the college. Restrictions regarding class absences are explained in the class attendance regulations. Any cadet who has been granted a furlough and who stays over the time stipulated, unless for sickness or other reason acceptable to the Commandant, will be administered a punishment not to exceed one month's arrest and twenty demerits. In case a cadet is prevented by sickness from returning at the stipulated time, he must submit a certificate from his attending physician. However, no such certificate will be accepted unless the President or the Commandant has been notified in advance of the expiration of the furlough.

Cadets returning late on furlough are placed in room arrest pending an investigation of the reason of the late return.

All communications from parents requesting furloughs for their sons must be addressed or sent directly to "The Commandant," and must set forth fully the reason for the request. No furlough will be granted unless the reasons given are considered satisfactory and sufficient justification for any loss of time from college duties; every student is held responsible for his class absences in accordance with the provisions of the class attendance regulations. Telegrams which do not explain fully will not be

accepted as complying with the rules. In any case in which business is given as a reason, the nature of the business must be explained fully.

A parent has the right to demand a discharge from college at any time and for any reason, but the college authorities reserve the right to grant or refuse to grant furloughs.

*Week-End Leaves.* Week-end leaves will be granted under conditions prescribed by the President.

*Demerits.* Any regular cadet who may receive within any one semester more than 90 demerits during his freshman year, or more than 70 demerits during his sophomore year, or more than 60 demerits during his junior year, or more than 50 demerits during his senior year; or any day cadet who may receive within any one semester more than 70 demerits during his freshman year, or more than 60 demerits during his sophomore year, or more than 50 demerits during his junior year, or more than 35 demerits during his senior year shall be required, by the President, to withdraw immediately from College.

*Discharge.* No cadet unless twenty-one years of age and paying his own way at college shall be honorably discharged except on the written application of his parents or guardian addressed to the President, or for reasons satisfactory to the President.

## SCHOLASTIC REGULATIONS

1. The semester hour shall be the basis of all credits. One recitation hour or three laboratory or shop hours a week if self-contained, or two if considerable work is required out of the class period, shall constitute a semester hour.

2. The standing of a student in his work at the end of a semester shall be based on daily class work, regularity of attendance, tests or other work, and the final examinations.

3. Written examinations shall be required in all subjects at the end of each semester, except in certain laboratory or practical courses where not deemed necessary by the department faculty. A student who has been absent from more than one-fourth of the total number of class periods in any subject for a semester is debarred from the final examination.

4. A semester grade once reported to the Registrar shall be the final grade for the period covered.

5. No semester grade shall be given out or posted until the last day of the examination period. Grades will then be posted by instructors as promptly as possible.

6. When an instructor completes a subject he may hold an examination on it before beginning the next subject, provided such examination does not conflict with the regularly scheduled work.

7. *Reports and Grades*—Semester reports are mailed to parents after the end of each semester (usually within two or three weeks). Mid-semester reports do not form a part of the permanent record in the Registrar's office, but are sent to parents for their information.

The grading system shall be as follows:

*A—Excellent.* Indicates that the student is doing work of a very high character. The highest grade given.

*B—Good.* Indicates work that is satisfactory, though not of the highest order.

*C—Fair.* Indicates work of average or medium character.

*D—Pass.* Indicates work below the average and unsatisfactory. The lowest passing grade. For promotion to the junior and senior classes a student must have a grade above D on 50

per cent of his total credit hours. For graduation this average is also required. (For the class entering the college in September, 1940, the quality requirements for promotion and graduation will be changed to that of an average grade expressed as a grade-point ratio.)

*E—Conditioned.* Indicates a failure to satisfy the requirements as to daily recitations, tests or other work, as well as to the final examination, which condition in the opinion of the instructor may be made up by reexamination at some fixed time.

*F—Failed.* Indicates that a student knows so little of the subject that it must be repeated in order that credit may be received.

*I—Incomplete Work.* Indicates that a relatively small part of the semester's work remains undone. A grade *I* is not to be given a student who has made a grade *F* on his daily work.

*"I-Abs. Ex."* Indicates absence from examination on account of sickness or other satisfactory reason.

#### 8. *Absences from Class. Removal of Grade I.*

Instructors keep a daily record of class attendance.

Students should not request instructors to excuse them from classes or to change class periods or examinations. Instructors have no authority to grant such requests.

All class work missed on account of absences for good and sufficient reasons shall be made up to the satisfaction of the instructor within thirty days after the student returns to classes.

All incomplete grades (*I's*) for first semester not removed within thirty days after the beginning of the second semester shall become *F's*. All incomplete grades (*I's*) for second semes-



ter not removed within thirty days after the beginning of the first semester shall become failures (*F's*) and must be taken over as such.

A student who, for reasons satisfactory to the faculty, is absent from any of the first semester examinations will be graded *I-Abs. Exam.* and will be allowed to make up these examinations during the second semester at the period scheduled for this work. A student who is absent for satisfactory reasons from any of the second semester examinations shall stand them during the make-up period in September. A student who is absent from an examination without excuse is graded *F*.

9. *Special Examinations.* Any request for a special examination must be approved by (1) the instructor concerned, (2) the head of the department concerned, (3) the dean of the school, and (4) the registrar. When the request is approved by all those concerned, a special examination will be given on payment of a \$2.00 fee.

10. *Removal of Conditions.* Only one opportunity shall be given a student to remove a condition (*E*) by a reexamination. A student who fails to pass such a reexamination shall be required to repeat the subject hour for hour in class. Not more than twelve credit hours of conditions for a session shall be removed by reexamination. A student shall not receive a grade higher than *D* when a deficiency is removed by reexamination.

Reexaminations shall be held as scheduled by the schedule committee. All conditions (*E's*) not removed during the time set aside for reexaminations shall become failures. Seniors may remove conditions during the week preceding Commencement.

11. *Removal of Failures.* A student who has failed (made a grade *F*) in a subject cannot receive credit for that subject until it has been repeated hour for hour in class, except that in the case of correlated laboratory work, the number of hours to be taken shall be determined by the instructor. Where separate

grades for class and laboratory work are given, that part of the subject shall be repeated in which the failure occurs.

12. *Withdrawals on Account of Unsatisfactory Work.* A student who at the end of the first semester does not make a grade of *D* or above on at least nine credit hours may be required to withdraw from college. A student who at the end of the session does not make a grade of *D* or above on at least eighteen credit hours shall not be permitted to return the following session.

13. *Promotion and Classification.* Promotion is by subjects, but a student is classified according to the amount of college work completed. The term freshmen is used to apply to new students with the exception of those who have completed as much as a full year of college work elsewhere. Old students who have not passed as much as twenty-four semester credit hours are also designated as freshmen. To be a sophomore a student must have to his credit at least twenty-four semester hours, and to be a junior a student must have completed a total number of semester hours within fourteen credits of the requirements of the first two years of his course, and must have a grade of *C* or above on at least one-half of his credits. A student must have completed a total number of semester hours within forty-seven credits of the requirements for graduation in his course, and must have a grade of *C* or above on at least one-half of his credits, before he may be enrolled as a senior or hold any office or appointment reserved by the faculty for seniors. A student's classification at the beginning of the session will remain his classification throughout the session. Every student is responsible for knowing the requirements of his course and his status in regard to meeting these requirements. (For the class entering the College in September, 1940, the quality requirement for promotion will be changed to that of an average grade expressed as a grade-point ratio.)

14. *Amount of Class Work Permitted and Required.* The normal schedule for a student includes only as many credit hours as are required for the class and course in which he is registered.

Students should schedule this amount of work unless their credits are restricted as a result of a poor record during the previous semester. Students are advised not to exceed the normal schedule except upon approval by the class adviser.

The maximum number of credit hours which a student may schedule is governed by his scholastic record for the last semester of his attendance and by his academic classification for the session concerned. If any student schedules excessive credits amounting to one-third of a semester hour or a greater amount, he will be automatically dropped from a sufficient number of subjects to reduce his total credits within the limits. If for any reason a student's excessive registration continues throughout the semester, his credit on one or more subjects passed will be cancelled at the end of the semester.

The maximum limits of credits are based upon the following regulations:

(1) A student who does not pass thirteen or more credit hours in any semester shall not be permitted to take more than eighteen credit hours in the following semester of attendance at the college.

(2) For students not restricted to eighteen credit hours, the maximum number of credits which may be taken is dependent upon the classification of the student: seniors, 22; juniors, 21  $\frac{1}{3}$ ; sophomores, 20  $\frac{2}{3}$ ; freshmen, 20, except that entering freshmen are restricted to the requirements of their respective courses.

(3) A student whose average grade for the previous semester is B or above (grade-point ratio of 6.0 or above) may take four credits in excess of the limit determined in accord with his classification.

15. *Dropping Class Work.* Upon the recommendation of the instructor and the director concerned to the President, a student's standing will be investigated and he may be required to drop a subject because of neglect, or lack of application or

preparation. No student will be dropped under this rule without approval by the President.

A subject dropped after the middle of the semester is recorded as a subject failed unless the student shall have a daily average of *C* or above in that subject; in which case it will be recorded as "subject dropped."

16. *Time of Scheduling Work.* All students shall register for classes during the class registration period. A fee of two dollars is charged for registering late for class work.

17. *Deficiencies in Year Courses.* A student who receives a grade *F* on a first-semester subject that is prerequisite for a second-semester subject shall not schedule such second-semester subject without permission of the reexamination and promotion committee and the dean of the school concerned.

18. *How to raise a Grade E.* A grade *E* may be removed as prescribed in Section 11. However, if a student makes a grade *E* in a subject which continues beyond the first semester and to the end of the second semester, the instructor may at the end of the session recommend that the grade be raised to a *D*, provided the grade made on the work of the second semester is *A* or *B*. In such a case the recommendation of the instructor shall be made a special report, must be approved by the dean of the school, and must accompany the grades of the second semester.

19. *Promotion to the Junior and Senior Classes.* A student shall not be permitted to enroll in the senior class until all the work of the freshman and sophomore classes has been completed. A student shall not be admitted to the junior and senior classes who has not received grades above *D* on 50 per cent of his credit hours (See also Rule 13 above).

20. *Requirements for Graduation.* For graduation a student must have completed as many credit hours as are required in his course with a grade above *D* on 50 per cent of the total



credit hours. All work must be completed before 5 P. M. on the Wednesday preceding Commencement. Residence of at least one regular session shall be required for graduation. (For the class entering the College in September, 1940, the quality requirement for graduation will be changed to that of an average grade expressed as a grade-point ratio.)

21. *Seniors Failing to Graduate.* A senior who fails to graduate because of one *F* on any subject shall have an opportunity of removing it by examination during the make-up period in September provided he can furnish evidence of having done satisfactory study. Failing to do this he shall repeat the subject.

22. *Change in Course.* Aimless shifting is discouraged, but for good reasons a change in course may be made at the end of any semester. The student must meet the full requirements of the course to which he changes.

23. *Textbooks and Supplies.* Each students shall be required to own his individual textbooks and the necessary equipment.

All requests from the students to the faculty must be made in writing.

## PART V—DEGREES AND CURRICULA

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### REQUIREMENTS FOR DEGREES

The degree of Bachelor of Science is awarded to those students who satisfactorily complete one of the four-year curricula offered under the Schools of Agriculture, Chemistry, General Science, Textiles, Vocational Education, and to those students who complete either the course in Architecture or the course in Chemistry-Engineering under the School of Engineering. The degrees of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, and Bachelor of Mechanical Engineering are awarded to the graduates of these respective courses.

In addition to the courses prescribed in the various curricula, at least fourteen hours of *free electives* are allowed. Other electives are subject to the approval of the dean of the school in which the major course is taken. For rules governing scholastic work, see the scholastic regulations.

All work for a degree must be completed by 5 P. M. on the Wednesday preceding graduation exercises. Residence of at least one regular session is required for graduation. Every candidate for a degree must pay to the Treasurer of the College the cost of his diploma before 5 P. M. on the Wednesday preceding graduation.

If all work toward a degree is not completed within five years after entrance, the student may be required to take additional courses.

### PROFESSIONAL DEGREE IN ENGINEERING

The College offers the following professional engineering degrees: Civil Engineer, Electrical Engineer and Mechanical Engineer.

The requirements for these degrees are: (a) a Bachelor's degree from Clemson College in one of these three branches in

engineering, (b) five years of subsequent professional experience, one year of which must have been in responsible charge of engineering or engineering instruction, (c) the preparation of a thesis demonstrating distinct technical ability. (Detailed information regarding professional degrees may be obtained from the Registrar.)

### *COURSES OF STUDY*

Twenty-two undergraduate courses of study are offered in the schools of Agriculture, Chemistry, Engineering, General Science, Textiles, and Vocational Education. The major courses under each department are indicated below:

#### SCHOOL OF AGRICULTURE

Agricultural Economics and  
Rural Sociology  
Agricultural Engineering  
Agronomy  
Animal Husbandry  
Dairy  
Entomology  
Horticulture

#### SCHOOL OF CHEMISTRY

Chemistry

#### SCHOOL OF GENERAL SCIENCE

General Science  
Pre-Medical

#### SCHOOL OF ENGINEERING

Architecture  
Chemistry—Engineering  
Civil Engineering  
Electrical Engineering  
Mechanical Engineering

#### SCHOOL OF TEXTILES

Textile Chemistry and  
Dyeing  
Textile Engineering  
Weaving and Designing

#### SCHOOL OF VOCATIONAL EDUCATION

Agricultural Education  
Education  
Industrial Education  
Textile Industrial Education

In addition to the work in these regular courses, the college offers the opportunity for certain work after graduation to properly qualified students from this and other institutions. This work may be of an advanced nature or may be a special program of undergraduate studies. Students interested in work along this line should consult the Registrar or the Head of the Department concerned. Graduate Work is offered in the Sum-

mer in Vocational Education. For information, write the Registrar or the Dean of the School of Vocational Education.

While the college is glad to assist all who ask for help in securing employment, it does not guarantee positions to those who complete any of the courses of study.

In the curricula which follow are given the official title and number of the course, the descriptive title, the number of semester hours credit, and in parentheses the number of hours per week in class and laboratory, respectively.

## SCHOOL OF AGRICULTURE

The basic curriculum in agriculture consists of fundamental and comprehensive subject matter in the School of Agriculture supplemented with courses in English, mathematics, and in the natural and social sciences. In addition to the courses required, opportunity is given for a broad selection of courses in the School of Agriculture and other schools of the College, which will prepare students for farming, positions as county agricultural agents, specialists and technicians in many fields of agriculture and allied industries, and other occupations of usefulness in an agricultural community.

The minimum requirements for the degree of Bachelor of Science in Agriculture are as follows:

|                                                 |                |
|-------------------------------------------------|----------------|
| Required courses in other schools.....          | 50 1/3 credits |
| Required courses in School of Agriculture.....  | 50 1/3 credits |
| Electives (of which 14 are free electives)..... | 41 1/3 credits |
| <hr/>                                           |                |
| Total minimum credits required.....             | 142            |

All students in the School of Agriculture with the exception of those electing agricultural engineering, pursue the same curriculum during the freshman and sophomore years. Certain courses are also required of all agricultural students during the junior and senior years. In the junior year a student must elect a major in agricultural economics, agronomy, animal husbandry,



dairying, entomology, or horticulture. Sufficient courses will be elected to complete the requirements for graduation.

Students of the School of Agriculture are given an opportunity to become familiar with the work of the agricultural experiment station, the extension service, crop pest commission, and fertilizer inspection and analysis. They also have opportunity to work on thesis problems in cooperation with members of the agricultural experiment station staff and in this way gain an insight into the methods employed in scientific research.

## AGRICULTURE

### *Basic Curriculum*

#### *Required of all Agricultural Students*

(Except those in Agricultural Engineering)

### FRESHMAN YEAR

#### *First Semester*

|                                             |                 |       |
|---------------------------------------------|-----------------|-------|
| *A. H. 12, Types, Breeds and Market Classes | 2 $\frac{2}{3}$ | (2,2) |
| Bot. 13, Agricultural                       | 2 $\frac{2}{3}$ | (2,2) |
| Gen. Chem. 11, General                      | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 11, Freehand                        | 2 $\frac{2}{3}$ | (0,2) |
| English 15, Comp. & Lit.                    | 3               | (3,0) |
| Math. 15, College Algebra                   | 3               | (3,0) |
| M. S. 11, Military Science                  | 1               | (0,3) |

16 $\frac{2}{3}$

#### *Second Semester*

|                            |                 |       |
|----------------------------|-----------------|-------|
| *Agr. 11, Field Crops      | 3               | (3,0) |
| Bot. 14, Agricultural      | 3 $\frac{1}{3}$ | (2,4) |
| Gen. Chem. 12, General     | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 12, Mechanical     | 2 $\frac{2}{3}$ | (0,2) |
| English 16, Comp. & Lit.   | 3               | (3,0) |
| Math. 11, Trigonometry     | 3               | (3,0) |
| M. S. 12, Military Science | 1               | (0,3) |

17 $\frac{2}{3}$

### SOPHOMORE YEAR

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| Org. Chem. 23, Organic          | 4               | (3,3) |
| *Dairy 21, Dairying             | 2 $\frac{2}{3}$ | (2,2) |
| English 21, Lit. and Adv. Comp. | 2               | (2,0) |
| *Geol. 21, Agricultural         | 3               | (3,0) |
| M. S. 21, Military Science      | 1               | (0,3) |
| Phys. 29, Physics               | 3 $\frac{2}{3}$ | (3,2) |
| Zool. 21, Zoology               | 2 $\frac{2}{3}$ | (2,2) |

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|                                 |                 |       |
|---------------------------------|-----------------|-------|
| *Ag. Ec. 22, Ag. Econ.          | 3               | (3,0) |
| Agr. 20, Soils                  | 2 $\frac{2}{3}$ | (2,2) |
| *Ag. Engr. 22, Farm Mach.       | 2 $\frac{2}{3}$ | (2,2) |
| Org. Chem. 24, Organic          | 4               | (3,3) |
| English 22, Lit. and Adv. Comp. | 2               | (2,0) |
| *Hort. 22, General              | 3               | (2,3) |
| Phys. 30, Physics               | 2 $\frac{2}{3}$ | (0,2) |
| M. S. 22, Military Science      | 1               | (0,3) |

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### JUNIOR YEAR

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| A. H. 31, Feeds and Feeding     | 3               | (3,0) |
| Bact. 31, General               | 3 $\frac{1}{3}$ | (2,4) |
| Ent. 31, Introd. and Appl. Ent. | 2 $\frac{2}{3}$ | (2,2) |
| M. S. 31, Military Science      | 1               | (0,3) |
| Major and Electives             | 8               |       |

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|                                |                 |       |
|--------------------------------|-----------------|-------|
| Ag. Ec. 32, Farm Org. and Mgt. | 2 $\frac{2}{3}$ | (2,2) |
| Agr. 32, or Dairy 32, Genetics | 2 $\frac{2}{3}$ | (2,2) |
| M. S. 32, Military Science     | 2 $\frac{2}{3}$ | (0,2) |
| P. H. 32, Farm Poultry         | 2 $\frac{2}{3}$ | (2,2) |
| Major and Electives            | 9 $\frac{1}{3}$ |       |

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\*Offered both semesters.

## SENIOR YEAR

|                                         |    |       |                                 |     |       |
|-----------------------------------------|----|-------|---------------------------------|-----|-------|
| †Agr. 31, Fertilizers and Manures ----- | 2  | (2,0) | Ag. Ec. 42, Rural Soc.-----     | 3   | (3,0) |
| Gov. 31, Government -----               | 3  | (3,0) | M. S. 42, Military Science----- | 2   | (0,2) |
| M. S. 41, Military Science-----         | 1  | (0,3) | Major and Electives -----       | 13  |       |
| Major and Electives -----               | 11 |       |                                 | 16% |       |

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## AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY MAJOR

## JUNIOR YEAR

*First Semester*

|                                    |    |       |
|------------------------------------|----|-------|
| Required in Basic Curriculum ----- | 10 |       |
| Ag. Ec. 35, Coop. in Ag.-----      | 3  | (3,0) |
| Electives -----                    | 5  |       |

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|                                      |         |
|--------------------------------------|---------|
| Suggested Electives:                 |         |
| Econ. 23, Economics -----            | 2 (2,0) |
| Econ. 31, Cont. Ec. Problems-----    | 3 (3,0) |
| Eng. 31, Public Speaking -----       | 2 (2,0) |
| French 11 or German 11-----          | 3 (3,0) |
| Hist. 31, Hist. of Civilization----- | 3 (3,0) |
| Agr. 33, Forage Crops -----          | 3 (3,0) |

*Second Semester*

|                                 |         |
|---------------------------------|---------|
| Required in Basic Curriculum 8% |         |
| Ag. Ec. 34, Public Finance----- | 3 (3,0) |
| Ag. Ec. 36, Stat. Methods-----  | 3 (3,0) |
| Electives -----                 | 3 1/2   |

18

|                                      |         |
|--------------------------------------|---------|
| Suggested Electives:                 |         |
| Econ. 24, Economics -----            | 2 (2,0) |
| Econ. 31, Cont. Ec. Problems         |         |
| -----                                | 3 (3,0) |
| Eng. 32, Business Law -----          | 2 (2,0) |
| Hist. 32, Hist. of Civilization----- | 3 (3,0) |
| French 12 or German 12-----          | 3 (3,0) |

## SENIOR YEAR

|                                               |   |       |
|-----------------------------------------------|---|-------|
| Required in Basic Curriculum-----             | 6 |       |
| Ag. Ec. 41, Principles of Marketing -----     | 3 | (3,0) |
| Ag. Ec. 43, Farm Finance and Accounting ----- | 3 | (3,0) |
| Ag. Ec. 51, Seminar -----                     | 1 | (1,0) |
| Electives -----                               | 4 |       |

17

|                               |         |
|-------------------------------|---------|
| Suggested Electives:          |         |
| French 21, or German 21-----  | 3 (3,0) |
| Agr. 45, Crop Nutrition ----- | 2 (2,0) |
| Eng. 31, Public Speaking----- | 2 (2,0) |
| Agr. 43, Farm Problems-----   | 2 (2,0) |

|                                    |         |
|------------------------------------|---------|
| Required in Basic Curriculum 3%    |         |
| Ag. Ec. 46, Farmer Movements ----- | 3 (3,0) |
| Ag. Ec. 44, Land Economics-----    | 3 (3,0) |
| Ag. Ec. 52, Seminar -----          | 1 (1,0) |
| Ag. Ec. 40, Econ. Geography-----   | 3 (3,0) |
| Electives -----                    | 3       |

16%

|                                   |             |
|-----------------------------------|-------------|
| Suggested Electives:              |             |
| Econ. 24, Economics -----         | 2 (2,0)     |
| Sociol. 31, Sociology -----       | 2 (2,0)     |
| French 22 or German 22-----       | 3 (3,0)     |
| Agr. 42, Soil Fert. and Mgt.----- | 2 (2,0)     |
| Hort. 52, Com. Pomology-----      | 2 1/2 (2,2) |

## AGRONOMY MAJOR

## JUNIOR YEAR

*First Semester*

|                                  |         |
|----------------------------------|---------|
| Required in Basic Curriculum 10  |         |
| Agr. 31, Fert. and Manures 2     | (2,0)   |
| Agr. 33, Forage Crops -----      | 3 (3,0) |
| English 31, Public Speaking----- | 2 (2,0) |
| Electives -----                  | 1       |

18

|                                          |             |
|------------------------------------------|-------------|
| Suggested Electives:                     |             |
| Hort. 31, Plant Prop. -----              | 2 1/2 (2,2) |
| Psychol. 35, Psychol. for Teachers ----- | 3 (2,2)     |

*Second Semester*

|                                 |             |
|---------------------------------|-------------|
| Required in Basic Curriculum 8% |             |
| Bot. 30, Plant Phys. -----      | 3 1/2 (2,4) |
| Electives -----                 | 6           |

18

|                                          |         |
|------------------------------------------|---------|
| Suggested Electives:                     |         |
| Psychol. 36, Psychol. for Teachers ----- | 3 (2,2) |
| Ag. Engr. 38, Soil Conservation -----    | 2 (1,8) |

†Agronomy students take Agronomy 31 in the Junior Year and schedule two hours additional elective in the Senior Year.

## SENIOR YEAR

|                              |                |       |
|------------------------------|----------------|-------|
| Required in Basic Curriculum | 4              |       |
| Agr. 45, Crop Nutrition      | 2              | (2,0) |
| Agr. 47, Adv. Crop Lab.      | $\frac{2}{3}$  | (0,2) |
| Agr. 49, Plant Breeding      | $2\frac{2}{3}$ | (2,2) |
| Agr. 51, Seminar             | 1              | (1,0) |
| Agr. 53, Cotton              | 2              | (2,0) |
| Agr. 61, Thesis              | 1              | (0,3) |
| Electives                    | $3\frac{2}{3}$ |       |

17

|                              |                |       |
|------------------------------|----------------|-------|
| Required in Basic Curriculum | $3\frac{2}{3}$ |       |
| Agr. 42, Soil Fert. and Mgt. | 2              | (2,0) |
| Agr. 44, Adv. Soil Lab.      | $\frac{2}{3}$  | (0,2) |
| Agr. 52, Seminar             | 1              | (1,0) |
| Agr. 62, Thesis              | 1              | (0,3) |
| Bact. 44, Soil Microbiology  | 3              | (2,3) |
| Electives                    | $5\frac{1}{3}$ |       |

16 $\frac{2}{3}$ 

## Suggested Electives:

|                              |                |       |
|------------------------------|----------------|-------|
| Bot. 41, Field Crop Diseases | $2\frac{2}{3}$ | (2,2) |
| Geol. 33, Mineralogy         | $2\frac{2}{3}$ | (2,2) |

## Suggested Electives:

|                             |               |       |
|-----------------------------|---------------|-------|
| Y. M. 23, Cotton Grading    | $\frac{2}{3}$ | (0,2) |
| Ag. Ec. 40, Econ. Geography | 3             | (3,0) |
| Ag. Ec. 44, Land Economics  | 3             | (3,0) |

## ANIMAL HUSBANDRY MAJOR

## JUNIOR YEAR

## First Semester

|                              |    |       |
|------------------------------|----|-------|
| Required in Basic Curriculum | 10 |       |
| A. H. 35, Farm Meats         | 2  | (0,6) |
| Electives                    | 6  |       |

18

## Suggested Electives:

|                           |   |       |
|---------------------------|---|-------|
| English 31, Pub. Speaking | 2 | (2,0) |
| Psychol. 35, Psychology   | 3 | (2,2) |
| Dairy 31, Judging         | 1 | (0,3) |
| Agr. 33, Forage Crops     | 3 | (3,0) |

## Second Semester

|                              |                |       |
|------------------------------|----------------|-------|
| Required in Basic Curriculum | $8\frac{2}{3}$ |       |
| A. H. 32, Judging            | 1              | (0,3) |
| A. H. 34, Pork Production    | $2\frac{2}{3}$ | (2,2) |
| Electives                    | $5\frac{2}{3}$ |       |

18

## Suggested Electives:

|                                      |                |       |
|--------------------------------------|----------------|-------|
| Hort. 32, Prin. Veg. Prod.           | $2\frac{2}{3}$ | (2,2) |
| Ag. Engr. 38, Soil Conserva-<br>tion | 2              | (1,3) |
| Ag. Ec. 36, Statistical<br>Methods   | 2              | (3,0) |

## SENIOR YEAR

|                                         |                |       |
|-----------------------------------------|----------------|-------|
| Required in Basic Curriculum            | 6              |       |
| A. H. 41, Advanced Feeds<br>and Feeding | 2              | (2,0) |
| A. H. 43, Beef Production               | $2\frac{2}{3}$ | (2,2) |
| Vet. 41, Anatomy and Phys.              | $2\frac{2}{3}$ | (2,2) |
| Electives                               | $3\frac{2}{3}$ |       |

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## Suggested Electives:

|                                   |                |       |
|-----------------------------------|----------------|-------|
| A. H. 45, Adv. Judging            | 1              | (0,3) |
| P. H. 41, Judging and<br>Breeding | $2\frac{2}{3}$ | (2,2) |
| Eng. 31, Public Speaking          | 2              | (2,0) |
| Ag. Ec. 43, Farm Finance          | 3              | (3,0) |

|                                         |                |       |
|-----------------------------------------|----------------|-------|
| Required in Basic Curriculum            | $3\frac{2}{3}$ |       |
| A. H. 40, Animal Breeding               | $2\frac{2}{3}$ | (2,2) |
| A. H. 42, Horse and Sheep<br>Production | $2\frac{2}{3}$ | (2,2) |
| A. H. 44, Adv. Meats                    | 2              | (1,3) |
| A. H. 52, Seminar                       | 2              | (2,0) |
| Electives                               | $3\frac{2}{3}$ |       |

16 $\frac{2}{3}$ 

## Suggested Electives:

|                                      |                |       |
|--------------------------------------|----------------|-------|
| Vet. 42, Diseases                    | $2\frac{2}{3}$ | (2,2) |
| P. H. 42, Adv. Poultry               | $2\frac{2}{3}$ | (2,2) |
| Dairy 43, Nutrition                  | 2              | (2,0) |
| Hort. 54, Truck Crops                | $2\frac{2}{3}$ | (2,2) |
| Eng. 49, Ag. Journalism              | 2              | (2,0) |
| Agr. 42, Soil Fert. and Mgt.         | 2              | (2,0) |
| Ag. Engr. 38, Soil Conserva-<br>tion | 2              | (1,3) |

## DAIRY MAJOR

## JUNIOR YEAR

*First Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 10              |       |
| Dairy 35, Feeding and Mgt.   | 2 $\frac{2}{3}$ | (2,2) |
| Dairy 31, Judging            | 1               | (0,3) |
| Electives                    | 4 $\frac{1}{3}$ |       |
|                              | <hr/> 18        |       |

## Suggested Electives:

|                           |   |       |
|---------------------------|---|-------|
| Eng. 31, Public Speaking  | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods | 3 | (3,0) |
| Psychol. 35, Psychology   | 3 | (2,2) |
| Ag. 33, Forage Crops      | 3 | (3,0) |

*Second Semester*

|                                            |                 |       |
|--------------------------------------------|-----------------|-------|
| Required in Basic Curriculum               | 8 $\frac{2}{3}$ |       |
| Org. Chem. 34, Dairy Chemistry             | 3               | (2,3) |
| *Dairy 34, Dairy Plant Org. and Management | 3               | (3,0) |
| Electives                                  | 3 $\frac{1}{3}$ |       |
|                                            | <hr/> 18        |       |

## Suggested Electives:

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| *Dairy 36, Market Milk          | 3               | (3,0) |
| E g 32, Business Law            | 2               | (2,0) |
| A. H. 34, Pork Production       | 2 $\frac{2}{3}$ | (2,2) |
| Ag. Engr. 38, Soil Conservation | 2               | (1,3) |

## SENIOR YEAR

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| Required in Basic Curriculum    | 6               |       |
| Dairy 41, Dairy Manufactures    | 3               | (2,3) |
| Dairy 43, Breeding              | 1 $\frac{1}{3}$ | (1,2) |
| Dairy 51, Seminar               | 1               | (1,0) |
| Vet. 41, Anatomy and Physiology | 2 $\frac{2}{3}$ | (2,2) |
| Electives                       | 2 $\frac{2}{3}$ |       |
|                                 | <hr/> 17        |       |

## Suggested Electives:

|                                        |                 |       |
|----------------------------------------|-----------------|-------|
| Ag. Ec. 43, Farm Finance               | 3               | (3,0) |
| P. H. 41, Poultry Judging and Breeding | 2 $\frac{2}{3}$ | (2,2) |
| Eng. 31, Public Speaking               | 2               | (2,0) |
| Ag. 43, Farm Problems                  | 2               | (2,0) |

|                              |                        |       |
|------------------------------|------------------------|-------|
| Required in Basic Curriculum | 3 $\frac{2}{3}$        |       |
| Bact. 40, Dairy Bact.        | 3                      | (2,3) |
| Dairy 42, Dairy Manufactures | 3 $\frac{1}{3}$        | (2,4) |
| Dairy 48, Nutrition          | 2                      | (2,0) |
| Dairy 52, Seminar            | 1                      | (1,0) |
| Electives                    | 3 $\frac{2}{3}$        |       |
|                              | <hr/> 16 $\frac{2}{3}$ |       |

## Suggested Electives:

|                              |                 |       |
|------------------------------|-----------------|-------|
| *Dairy 34, Dairy Org. & Mgt. | 3               | (3,0) |
| Eng. 49, Agric. Journalism   | 2               | (2,0) |
| Vet. 42, Diseases            | 2 $\frac{2}{3}$ | (2,2) |
| P H 42, Poultry              | 2 $\frac{2}{3}$ | (2,2) |
| Ag. 42, Soil Fert. Mgt.      | 2               | (2,0) |
| Hort. 54, Truck Crops        | 2 $\frac{2}{3}$ | (2,2) |

## ENTOMOLOGY MAJOR

## JUNIOR YEAR

*First Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 10              |       |
| Zool. 33, Adv. Zoology       | 2 $\frac{2}{3}$ | (2,2) |
| Electives                    | 5 $\frac{1}{3}$ |       |
|                              | <hr/> 18        |       |

## Suggested Electives:

|                          |   |       |
|--------------------------|---|-------|
| German 11, German        | 3 | (3,0) |
| Eng. 31, Public Speaking | 2 | (2,0) |
| Hist. 31, Hist. of Civ.  | 3 | (3,0) |

*Second Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 8 $\frac{2}{3}$ |       |
| Ent. 32, Gen. Entomology     | 3 $\frac{1}{3}$ | (2,4) |
| Electives                    | 6               |       |
|                              | <hr/> 18        |       |

## Suggested Electives:

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Zool. 48, Intro. to Game Mgt. | 2               | (2,0) |
| German 12, German             | 3               | (3,0) |
| Bot. 30, Plant Phys.          | 3 $\frac{1}{3}$ | (2,4) |
| Eng. 32, Bus Law              | 2               | (2,0) |

\*Dairy 34 and 36 are given in alternate years. Dairy 34 will be offered in 1940-1941.



## SENIOR YEAR

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 6               |       |
| Ent. 41, Ec. Entomology      | 2 $\frac{2}{3}$ | (2,2) |
| Ent. 45, Ins. Morphology     | 2 $\frac{2}{3}$ | (2,2) |
| Bot. 43, O. & T. Diseases    | 2 $\frac{2}{3}$ | (2,2) |
| Ent. 51, Seminar             | 1               | (1,0) |
| Ent. 59, Introd. to Research | 1 $\frac{2}{3}$ | (1,2) |
| Electives                    | 1 $\frac{1}{3}$ |       |

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|                                    |   |       |
|------------------------------------|---|-------|
| Suggested Electives:               |   |       |
| Ent. 47, Parasitology              | 2 | (2,0) |
| Ag. Ec. 33, Stat. Methods          | 3 | (3,0) |
| Psych. 35, Psychology for Teachers | 3 | (2,2) |

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 3 $\frac{3}{4}$ |       |
| Ent. 42, Econ. Ent.          | 2 $\frac{2}{3}$ | (2,2) |
| Ent. 44, Beekeeping          | 2 $\frac{2}{3}$ | (2,2) |
| Ent. 46, Systematic Ent.     | 2 $\frac{2}{3}$ | (1,4) |
| Ent. 52, Seminar             | 1               | (1,0) |
| Electives                    | 4 $\frac{1}{4}$ |       |

16 $\frac{3}{4}$ 

|                                      |   |       |
|--------------------------------------|---|-------|
| Suggested Electives:                 |   |       |
| Geol. 42, Meteorology                | 2 | (2,0) |
| Eng. 49, Agri. Journalism            | 2 | (2,0) |
| Psychol. 36, Psychology for Teachers | 3 | (2,2) |
| Soc. 31, Sociology                   | 2 | (2,0) |

## HORTICULTURE MAJOR

## JUNIOR YEAR

*First Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 10              |       |
| Hort. 33, the Prod. Hort.    |                 |       |
| Crops                        | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 31, Plant Propagation  | 2 $\frac{2}{3}$ | (2,2) |
| Electives                    | 2 $\frac{2}{3}$ |       |

18

|                                 |   |       |
|---------------------------------|---|-------|
| Suggested Electives:            |   |       |
| Hist. 31, Hist. of Civilization | 3 | (3,0) |
| Eng. 31, Public Speaking        | 2 | (2,0) |

*Second Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 8 $\frac{3}{4}$ |       |
| Botany 30, Plant Phys.       | 3 $\frac{1}{3}$ | (2,4) |
| Hort. 32, Landsc. Gardening  | 2 $\frac{2}{3}$ | (2,2) |
| Electives                    | 3 $\frac{1}{4}$ |       |

18

|                                 |   |       |
|---------------------------------|---|-------|
| Suggested Electives:            |   |       |
| Ag. Ec. 34, Public Finance      | 3 | (3,0) |
| Eng. 32, Business Law           | 2 | (2,0) |
| Hist. 32, Hist. of Civilization | 3 | (3,0) |
| Ag. Ec. 36, Stat. Methods       | 3 | (3,0) |

## SENIOR YEAR

|                                           |                 |       |
|-------------------------------------------|-----------------|-------|
| Required in Basic Curriculum              | 6               |       |
| Hort. 43, Breeding of Hort.               |                 |       |
| Crops or Hort. 47, Nut Culture and Sprays | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 41, Syst. Pomology                  | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 61, Seminar                         | 1               | (1,0) |
| Electives                                 | 4 $\frac{3}{4}$ |       |

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|                                  |                 |       |
|----------------------------------|-----------------|-------|
| Suggested Electives:             |                 |       |
| Bot. 43, O. and T. Crop Diseases | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 45, Landsc. Design         | 2               | (1,3) |
| Ag. Ec. 41, Prin. of Mktg.       | 3               | (3,0) |

|                              |                 |       |
|------------------------------|-----------------|-------|
| Required in Basic Curriculum | 3 $\frac{3}{4}$ |       |
| Hort. 52, Com. Pomology      | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 54, Truck Crops        | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 62, Seminar            | 1               | (1,0) |
| Electives                    | 6 $\frac{3}{4}$ |       |

16 $\frac{3}{4}$ 

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| Suggested Electives:            |                 |       |
| Hort. 46, Adv. Landsc. Design   | 2 $\frac{2}{3}$ | (2,2) |
| Hort. 56, Landsc. Design        | 2               | (1,3) |
| Ag. Ec. 40, Economic Geog.      | 3               | (3,0) |
| Geol. 42, Meteorology           | 2               | (2,0) |
| Ag. 42, Soil Fert. and Mgt.     | 2               | (2,0) |
| Ent. 42, Ec. Entomology         | 2 $\frac{2}{3}$ | (2,2) |
| Ag. Engr. 38, Soil Conservation | 2               | (1,3) |

## AGRICULTURAL ENGINEERING

This course is provided for the training of students in the principles of engineering as applied to agriculture. Due to the rapidly increasing demand for the services and advice of men trained in both agricultural and engineering technique, this

course fills a necessary place in adequately preparing men to meet these demands.

The curriculum is formulated requiring sufficient courses in the liberal arts, the foundation subjects of engineering and agriculture, and the specific agricultural engineering subjects, such as Farm Mechanics, Surveying and Drainage, Motors and Power Machinery, etc., all of which will equip the engineer for any phase of this profession.

## AGRICULTURAL ENGINEERING

### FRESHMAN YEAR

#### First Semester

|                            |                 |       |
|----------------------------|-----------------|-------|
| Bot. 13, Agricultural      | 2 $\frac{2}{3}$ | (2,2) |
| Gen. Chem. 11, General     | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 13, Engineering    | 1 $\frac{1}{3}$ | (0,4) |
| English 15, Comp. & Lit.   | 3               | (3,0) |
| Math. 11, Trigonometry     | 3               | (3,0) |
| Math. 13, College Algebra  | 2               | (2,0) |
| M. E. 17 or M. E. 12       | 2               | (0,6) |
| M. S. 11, Military Science | 1               | (0,3) |

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18 $\frac{1}{3}$ 

#### Second Semester

|                            |                 |       |
|----------------------------|-----------------|-------|
| Agr. 11, Field Crops       | 3               | (3,0) |
| Gen. Chem. 12, General     | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 14, Engr. Drawing  | 1 $\frac{1}{3}$ | (0,4) |
| Eng. 16, Comp. & Lit.      | 3               | (3,0) |
| Math. 12, Analytics        | 3               | (3,0) |
| Math. 14, College Algebra  | 2               | (2,0) |
| M. E. 12 or M. E. 17       | 2               | (0,6) |
| M. S. 12, Military Science | 1               | (0,3) |

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### SOPHOMORE YEAR

|                                            |                 |       |
|--------------------------------------------|-----------------|-------|
| Ag. Engr. 21, Agr. Mechanics               | 3               | (2,3) |
| A. H. 12, Types, Breeds and Market Classes | 2 $\frac{2}{3}$ | (2,2) |
| Drawing 25, Mechanical                     | 2 $\frac{2}{3}$ | (0,2) |
| Eng. 21, Lit. & Adv. Comp.                 | 2               | (2,0) |
| Math. 21, Diff. Calculus                   | 5               | (5,0) |
| M. S. 21, Military Science                 | 1               | (0,3) |
| Physics 21, 23, General                    | 5               | (4,3) |

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19 $\frac{1}{3}$ 

|                             |                 |       |
|-----------------------------|-----------------|-------|
| Ag. Engr. 22, Farm Mach.    | 2 $\frac{2}{3}$ | (2,2) |
| Draw. 26, Elem. Des. & Kin. | 2 $\frac{2}{3}$ | (0,2) |
| Eng. 22, Lit. & Adv. Comp.  | 2               | (2,0) |
| Math. 22, Int. Calculus     | 5               | (5,0) |
| M. S. 22, Military Science  | 1               | (0,3) |
| Physics 22, 24, General     | 5               | (4,3) |

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16 $\frac{1}{3}$ 

### JUNIOR YEAR

|                                   |                 |       |
|-----------------------------------|-----------------|-------|
| Ag. Engr. 33, Farm Bldgs.         | 3               | (2,3) |
| Ag. Engr. 35, Motors & Pwr. Mach. | 3               | (2,3) |
| C. E. 31, Mechanics               | 3               | (3,0) |
| Dairy 21, Introduction            | 2 $\frac{2}{3}$ | (2,2) |
| E. E. 35, Elec. Mach.             | 2               | (2,0) |
| E. E. 35a, Elec. Lab.             | 2 $\frac{2}{3}$ | (0,2) |
| M. S. 31, Military Science        | 1               | (0,3) |
| Electives                         | 1 $\frac{2}{3}$ |       |

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#### Suggested Electives:

|                            |   |       |
|----------------------------|---|-------|
| Agr. 33, Forage Crops      | 3 | (3,0) |
| Drawing 31, Machine Design | 1 | (0,3) |
| M. E. 21, Metallurgy       | 2 | (2,0) |
| M. E. 22, Mat. of Engr.    | 2 | (2,0) |

|                                          |                 |       |
|------------------------------------------|-----------------|-------|
| Ag. Ec. 32, Farm Mgt.                    | 2 $\frac{2}{3}$ | (2,2) |
| Ag. Engr. 34, Farm Bldgs.                | 3               | (2,3) |
| C. E. 23, Surveying                      | 1               | (1,0) |
| C. E. 23a, Survey, Field and Office Work | 2 $\frac{2}{3}$ | (0,2) |
| C. E. 32, Strength of Mat.               | 3               | (3,0) |
| Hort. 22, General                        | 3               | (2,3) |
| M. S. 32, Military Science               | 2 $\frac{2}{3}$ | (0,2) |
| Electives                                | 3               |       |

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#### Suggested Electives:

|                            |                 |       |
|----------------------------|-----------------|-------|
| C. E. 34, Graphic Statics  | 1 $\frac{2}{3}$ | (1,2) |
| Drawing 28, Struct. Draw.  | 2 $\frac{2}{3}$ | (0,2) |
| Drawing 32, Machine Design | 1               | (0,3) |

## SENIOR YEAR

|                                          |                  |                                                |       |
|------------------------------------------|------------------|------------------------------------------------|-------|
| Ag. Engr. 41, Rural Elec. ....3          | (2,3)            | Ag. Engr. 44, Surveying &                      |       |
| Ag. Engr. 51, Thesis ..... $\frac{2}{3}$ | (0,2)            | Drainage .....3                                | (2,3) |
| C. E. 49, Hydraulics .....3              | (3,0)            | Ag. Engr. 48, Adv. Farm                        |       |
| English 31, Public Speaking...2          | (2,0)            | Mach. ....2                                    | (1,3) |
| Geology 21, Agricultural .....3          | (3,0)            | Ag. Engr. 52, Thesis ..... $\frac{2}{3}$       | (0,2) |
| M. E. 23, Machine Shop .....1            | (0,3)            | Ag. 20, Soils ..... $2\frac{2}{3}$             | (2,2) |
| M. S. 41, Military Science .....1        | (0,3)            | M. E. 24, Machine Shop .....1                  | (0,3) |
| Electives .....8                         |                  | M. S. 42, Military Science ..... $\frac{2}{3}$ | (0,2) |
|                                          | 16 $\frac{2}{3}$ | Electives .....6                               |       |
|                                          |                  |                                                | 16    |

Suggested Electives:  
 Agr. 43, Farm Problems ....2 (2,0)

Suggested Electives:  
 Bact. 42, Sanitary Bact. ....3 (2,3)  
 Hort. 52, Com. Pom. ....  $2\frac{2}{3}$  (2,2)

## SCHOOL OF CHEMISTRY

This course is intended to prepare the student to engage in manufacturing operations involving a knowledge of chemistry, for employment as chemist in commercial, fertilizer inspection, or food or feeding-stuff inspection laboratories, and for experiment station work or U. S. Government service. A student who has satisfactorily completed this course will be well equipped in subject matter to teach elementary chemistry, or to pursue advanced work in chemistry.

Beginning with the junior year, sufficient electives are allowed to enable the student to fit himself for one of the fields of work listed above by pursuing the subject in the direction of chemical engineering, organic, physical, analytical or sanitary chemistry. The advances in all branches of chemistry have made specialization necessary, whether the student expects to enter any of the various lines of work open to a graduate of a thorough course in chemistry, or to pursue graduate work. For the latter group, two years of a modern language should be included in the electives chosen since this is a usual prerequisite for graduate work at most universities. Owing to the demand for biochemistry, any students who are interested in such a course may pursue the Chemistry Curriculum and elect biological subjects during the junior and senior years.

## CHEMISTRY

## FRESHMAN YEAR

| <i>First Semester</i>      |          | <i>Second Semester</i>     |          |
|----------------------------|----------|----------------------------|----------|
| Gen. Chem. 13, General     | 4½ (3,4) | Gen. Chem. 14, General     | 4½ (3,4) |
| English 15, Comp. and Lit. | 3 (3,0)  | English 16, Comp. and Lit. | 3 (3,0)  |
| *Modern Language           | 3 (3,0)  | *Modern Language           | 3 (3,0)  |
| Math. 11, Trigonometry     | 3 (3,0)  | Math. 12, Analytics        | 3 (3,0)  |
| Math. 13, College Algebra  | 2 (2,0)  | Math 14, College Algebra   | 2 (2,0)  |
| M. S. 11, Military Science | 1 (0,3)  | M. S. 12, Military Science | 1 (0,3)  |
| Physics 11, 15, General    | 3½ (3,2) | Physics 12, 16, General    | 3½ (3,2) |
| <hr/> 20                   |          | <hr/> 20                   |          |

## SOPHOMORE YEAR

|                              |          |                              |          |
|------------------------------|----------|------------------------------|----------|
| Anal. Chem. 21, Qualitative  | 4 (2,6)  | Anal. Chem. 22, Quantitative | 4 (2,6)  |
| Org. Chem. 21, Organic       | 5 (3,6)  | Org. Chem. 22, Organic       | 5 (3,6)  |
| Drawing 13, Engr. Drawing    | 1½ (0,4) | Drawing 14, Engr. Drawing    | 1½ (0,4) |
| Eng. 21, Lit. and Adv. Comp. | 2 (2,0)  | Eng. 22, Lit. and Adv. Comp. | 2 (2,0)  |
| Math. 21, Dif. Calculus      | 5 (5,0)  | Math. 22, Int. Calculus      | 5 (5,0)  |
| M. S. 21, Military Science   | 1 (0,3)  | M. S. 22, Military Science   | 1 (0,3)  |
| <hr/> 18½                    |          | <hr/> 18½                    |          |

## JUNIOR YEAR

|                              |          |                            |          |
|------------------------------|----------|----------------------------|----------|
| Phys. Chem. 31, Physical     | 3 (3,0)  | Phys. Chem. 32, Physical   | 3 (3,0)  |
| Phys. Chem. 33, Laboratory   | 2 (0,4)  | Phys. Chem. 34, Laboratory | 2 (0,4)  |
| Anal. Chem. 31, Quantitative | 2 (1,3)  | Sociol. 31, Sociology      | 2 (2,0)  |
| Org. Chem. 31, Adv. Organic  | 3 (2,3)  | English 32, Business Law   | 2 (2,0)  |
| Econ. 23, Econ.              | 2 (2,0)  | Geology 34, Mineralogy     | 2½ (2,2) |
| English 31, Pub. Speaking    | 2 (2,0)  | M. S. 32, Military Science | 2 (0,2)  |
| Geology 33, Mineralogy       | 2½ (2,2) | Electives                  | 4½       |
| M. S. 31, Military Science   | 1 (0,3)  | <hr/> 16½                  |          |
| <hr/> 17½                    |          |                            |          |

## SENIOR YEAR

|                             |         |                             |         |
|-----------------------------|---------|-----------------------------|---------|
| Gen. Chem. 45, History      | 2 (2,0) | Anal. Chem. 42, Stoich.     | 2 (2,0) |
| Phys. Chem. 41, Colloids    | 2 (2,0) | Phys. Chem. 42, Colloids    | 2 (2,0) |
| Gen. Chem. 41, Inorg. Chem. | 2 (2,0) | Gen. Chem. 42, Inorg. Chem. | 2 (2,0) |
| Anal. Chem. 41, Tech. Anal. | 3 (1,6) | Ind. Chem. 50, Thesis       | 3 (0,9) |
| M. S. 41, Military Science  | 1 (0,3) | M. S. 42, Military Science  | 2 (0,2) |
| Electives                   | 6       | Electives                   | 6½      |
| <hr/> 16                    |         | <hr/> 16                    |         |

\*History 14 and Government 12, 4 hour option—in place of Modern Language.

## SCHOOL OF ENGINEERING

The courses in the School of Engineering are Architecture, Chemistry-Engineering, Civil Engineering, Electrical Engineering and Mechanical Engineering. For most students it is recommended that they take, either as part of the free electives or as an addition, some courses in the social sciences.



If a student in Electrical or Mechanical Engineering does outstanding work in his freshman year, he may arrange with the dean of the School of Engineering to take both Electrical and Mechanical Engineering. This is particularly true of the non-R. O. T. C. student. These two courses may be taken in five years, allowing considerable elective work to be taken in General Science, Textile, and possibly some courses in Civil Engineering.

A student in Mechanical Engineering or Electrical Engineering if non-R. O. T. C. is permitted to elect considerable work in the Textile School if he plans his junior and senior years in advance. The R. O. T. C. student may arrange for a half year or one year additional, in which case he may take considerable Textile work provided he decides this by the beginning of the junior year.

## ARCHITECTURE

The information given below applies to the four-year course in Architecture as now given. In order to meet the modern trend the College is offering a five-year course in Architecture leading to the degree of Bachelor in Architecture. In this course the technical work of the lower classes is extended and elaborated, the fifth year design comprising a thesis in which the student selects his subject and writes the program to meet the approval of the faculty of Architecture. Work in Domestic Architecture, Specification Writing, Estimating, Chemistry, Surveying, Advanced History, and allied subjects are included. A copy of the curriculum may be secured upon request.

The course is a well-rounded cultural one, fitting the graduate not only for the practice of architecture, but for a number of allied professions. All work is individual and every effort is made to develop the student's individuality, imagination, and creative ability. Skillful draftsmanship and artistic presentation are insisted upon.

Architecture is one of the fine arts and much time is given to freehand drawing, color work, history of architecture, painting, and sculpture. Architectural design, the principal subject, extends through four years. In this the student is given a written program of requirements for a building or group of buildings and under the criticism of the instructor works out a solution embodying his own ideas. Freehand drawing consists of sketching and rendering from casts, nature and life, in pencil, charcoal, pen and ink, crayons, water color and oils. This extends through four years. History of architecture, historic ornament, and history of art are taught in the sophomore, junior and senior years.

Fundamental courses are given in mathematics, graphic statics, strength of materials, reinforced concrete, building construction, and in working drawings which consist of complete plans and specifications for a building prepared as in the office of a practicing architect.

The work in architecture occupies especially designed quarters on the top floor of Riggs Hall. One feature is a large drafting room equipped with individual drafting tables. This is a marked advantage since all may study their problems in design and have the benefit of mutual help and criticism. Adjoining this room and equipped with controlled lighting, is a studio containing plaster casts and models suitable for the needs in freehand drawing and color work. Class rooms are equipped with lanterns and slides.

A working library adjoining the drafting rooms contains many volumes concerning architecture and allied subjects, photographs, plans and illustrations, lantern slides, drawings, models, and files of the leading architectural magazines, both American and foreign. This is in addition to the main college library. In the structural drafting room is a complete built-in exhibit of building materials and appliances especially arranged for instructional purposes.

Each spring students are expected to take an educational trip to a large city to study examples of architecture and construction.

Six weeks of practical architectural work approved by the architectural faculty are required for graduation (Arch. 28).

## ARCHITECTURE

### FRESHMAN YEAR

#### First Semester

|                            |    |       |
|----------------------------|----|-------|
| Arch. 11, Elems. of Arch.  | 1½ | (0,5) |
| Arch. 13, Freehand Drawing | 1½ | (0,4) |
| Arch. 15, Descrip. Geom.   | ¾  | (0,2) |
| English 15, Comp. and Lit. | 3  | (3,0) |
| *French 11,                | 3  | (3,0) |
| *Gen. Chem. 11, General    | 3¾ | (3,2) |
| Math. 11, Trigonometry     | 3  | (3,0) |
| Math. 13, College Algebra  | 2  | (2,0) |
| Physics 11, General        | 3¾ | (3,2) |
| M. S. 11, Military Science | 1  | (0,3) |

19½ or 20

#### Second Semester

|                              |    |       |
|------------------------------|----|-------|
| Arch. 12, Arch. Design       | 1¾ | (0,5) |
| Arch. 14, Freehand Drawing   | 1½ | (0,4) |
| Arch. 16, Sh. Shad. & Persp. | ¾  | (0,2) |
| English 16, Comp. and Lit.   | 3  | (3,0) |
| *French 12                   | 3  | (3,0) |
| *Gen. Chem. 12, General      | 3¾ | (3,2) |
| Math. 12, Analytics          | 3  | (3,0) |
| Math. 14, College Algebra    | 2  | (2,0) |
| Physics 12, General          | 3¾ | (3,2) |
| M. S. 12, Military Science   | 1  | (0,3) |

19½ or 20

### SOPHOMORE YEAR

|                             |    |        |
|-----------------------------|----|--------|
| Arch. 21, Arch. Design      | 4¾ | (0,14) |
| Arch. 23, Antique and Color | 1  | (0,3)  |
| Arch. 25, Hist. of Arch.    | 4  | (4,0)  |
| *French 21                  | 3  | (3,0)  |
| *Hist. 31, Hist. of Civ.    | 3  | (3,0)  |
| English 21, Lit. and Adv.   |    |        |
| Comp.                       | 2  | (2,0)  |
| Math. 23, Dif. Calculus     | 3  | (3,0)  |
| M. S. 21, Military Science  | 1  | (0,3)  |

18¾

|                            |    |        |
|----------------------------|----|--------|
| Arch. 22, Arch. Design     | 4¾ | (0,14) |
| Arch. 24, Antique & Color  | 1  | (0,3)  |
| Arch. 26, Hist. of Arch.   | 4  | (4,0)  |
| *French 22                 | 3  | (3,0)  |
| *Hist. 32, Hist. of Civ.   | 3  | (3,0)  |
| English 22, Lit. and Adv.  |    |        |
| Comp.                      | 2  | (2,0)  |
| Math. 24, Int. Calculus    | 3  | (3,0)  |
| M. S. 22, Military Science | 1  | (0,3)  |

18¾

### JUNIOR YEAR

|                                |    |        |
|--------------------------------|----|--------|
| Arch. 31, Arch. Design         | 7½ | (0,22) |
| Arch. 33, Sketching and Paint. | 1  | (0,3)  |
| Arch. 35, Bldg. Constr.        | 3  | (3,0)  |
| Arch. 37, Working Drawings     | ¾  | (0,2)  |
| Arch. 39, Hist. Ornament       | ¾  | (0,2)  |
| C. E. 31, Mechanics            | 3  | (3,0)  |
| English 31, Public Speaking    | 2  | (2,0)  |
| M. S. 31, Military Science     | 1  | (0,3)  |
| Elective                       | 2  |        |

20¾

|                                 |    |        |
|---------------------------------|----|--------|
| Arch. 32, Arch. Design          | 7½ | (0,22) |
| Arch. 34, Sketching & Paint.    | 1  | (0,3)  |
| Arch. 36, Bldg. Constr.         | 2  | (2,0)  |
| Arch. 38, Working Drawings      | ¾  | (0,2)  |
| C. E. 32, Strength of Materials | 3  | (3,0)  |
| C. E. 34, Graphic Statics       | 1¾ | (1,2)  |
| English 32, Business Law        | 2  | (2,0)  |
| M. S. 32, Military Science      | ¾  | (0,2)  |
| Elective                        | 3  |        |

21½

### SENIOR YEAR

|                            |    |        |
|----------------------------|----|--------|
| Arch. 41, Arch. Design     | 6¾ | (0,20) |
| Arch. 43, Bldg. Constr.    | 3  | (3,0)  |
| Arch. 45, Struct. Design   | 2  | (0,6)  |
| Arch. 47, Mech. Plant      | 2  | (2,0)  |
| Arch. 49, Life Drawing     | ¾  | (0,2)  |
| C. E. 47, Reinforced Conc. | 2  | (2,0)  |
| Econ. 23, Economics        | 2  | (2,0)  |
| M. S. 41, Military Science | 1  | (0,3)  |
| Elective                   | 2  |        |

21½

|                            |    |        |
|----------------------------|----|--------|
| Arch. 42, Arch. Design     | 6¾ | (0,20) |
| Arch. 44, Bldg. Constr.    | 3  | (3,0)  |
| Arch. 46, Struct. Design   | 2¾ | (0,8)  |
| Arch. 48, Profess. Prac.   | 1  | (1,0)  |
| Arch. 40, Life Drawing     | ¾  | (0,2)  |
| Arch. 40.5, Hist. of Art.  | 2  | (2,0)  |
| Sociol. 31, Sociology      | 2  | (2,0)  |
| M. S. 42, Military Science | ¾  | (0,2)  |
| Elective                   | 3  |        |

21¾

\*French 11, 12, 21, and 22 or Chemistry 11, 12 and History 31, 32.

## CHEMISTRY-ENGINEERING

This course combines a well-rounded course in chemistry with fundamental courses in physics, mechanics, and engineering subjects with a view of training men for work in the chemical industries or industries in which both chemistry and engineering knowledge is necessary. The industries are more and more abandoning rule-of-thumb methods and are using men with a knowledge both of chemistry and engineering to design their plans and supervise the operation of various processes. An engineering knowledge is required in solving the engineering problems which arise in connection with the chemical industry or chemical processes. Economical production as well as the turning out of a good product naturally requires an interest in discovering where losses occur; in developing uses for by-products; and recovering and utilizing waste products.

It is hardly possible in a four-year course to cover well this field both in chemistry and in engineering. The course offered leads to a B.S. degree and is not claimed to be a course in Chemical Engineering, though the graduates are qualified for employment as chemists in manufacturing plants or industrial research, as gas plant chemists, and many other fields; and their training makes it possible for them to obtain a Chemical Engineering degree in a minimum of time.

## CHEMISTRY-ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                              |    |       |
|------------------------------|----|-------|
| Gen. Chem. 13, General       | 4½ | (3,4) |
| Drawing 13, Engr. Drawing    | 1½ | (0,4) |
| English 15, Comp. and Lit.   | 3  | (3,0) |
| *History 14, Amer. Ec. Hist. | 2  | (2,0) |
| Math. 11, Trigonometry       | 3  | (3,0) |
| Math. 13, College Algebra    | 2  | (2,0) |
| M. E. 17, or M. E. 12        | 2  | (0,6) |
| M. S. 11, Military Science   | 1  | (0,3) |

18½

*Second Semester*

|                             |    |       |
|-----------------------------|----|-------|
| Gen. Chem. 14, General      | 4½ | (3,4) |
| Drawing 14, Engr. Drawing   | 1½ | (0,4) |
| English 16, Comp. and Lit.  | 3  | (3,0) |
| *Gov. 12, Amer. National    |    |       |
| Govt.                       | 2  | (2,0) |
| Math. 12, Analytics         | 3  | (3,0) |
| Math. 14, College Algebra   | 2  | (2,0) |
| M. E. 12, or M. E. 17, Shop | 2  | (0,6) |
| M. S. 12, Military Science  | 1  | (0,3) |

18½

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\*Modern Language 3 Hr. Option.



## SOPHOMORE YEAR

|                                         |       |                                                 |       |
|-----------------------------------------|-------|-------------------------------------------------|-------|
| Anal. Chem. 21, Qualitative...4         | (2,6) | Anal. Chem. 22, Quantitative...4                | (2,6) |
| Drawing 25, Mechanical... $\frac{2}{3}$ | (0,2) | Drawing 26, Elem. Des. and Kin... $\frac{2}{3}$ | (0,2) |
| English 21, Lit. and Adv. Comp. ....2   | (2,0) | English 22, Lit. and Adv. Comp. ....2           | (2,0) |
| Math. 21, Dif. Calculus...5             | (5,0) | Math. 22, Int. Calcul. ....5                    | (5,0) |
| Physics 21 and 23, General...5          | (4,3) | Physics 22 and 24, General...5                  | (4,3) |
| M. S. 21, Military Science...1          | (0,3) | M. S. 22, Military Science...1                  | (0,3) |
| <hr/> 17 $\frac{2}{3}$                  |       | <hr/> 17 $\frac{2}{3}$                          |       |

## JUNIOR YEAR

|                                     |       |                                             |       |
|-------------------------------------|-------|---------------------------------------------|-------|
| Org. Chem. 21, Organic...5          | (3,6) | Org. Chem. 22, Organic...5                  | (3,6) |
| Anal. Chem. 31, Quantitative...2    | (1,3) | Drawing 32, Mach. Des. ....1                | (0,3) |
| Drawing 31, Kin. & Mach. Design...1 | (0,3) | English 32, Bus. Law...2                    | (2,0) |
| English 31, Public Speaking...2     | (2,0) | M. E. 24, Mach. Shop...1                    | (0,3) |
| M. E. 23, Mach. Shop...1            | (0,3) | C. E. 32, Strength of Mat....3              | (3,0) |
| C. E. 31, Mechanics...3             | (3,0) | M. E. 36, Thermodynamics...3                | (3,0) |
| M. E. 35, Power Plants...3          | (3,0) | M. E. 36a, Mech. Lab....1                   | (0,3) |
| M. S. 31, Military Science...1      | (0,3) | M. S. 32, Military Science... $\frac{2}{3}$ | (0,2) |
| Elective...2                        |       | Elective...3                                |       |
| <hr/> 20                            |       | <hr/> 19 $\frac{2}{3}$                      |       |

## SENIOR YEAR

|                                               |       |                                             |       |
|-----------------------------------------------|-------|---------------------------------------------|-------|
| Org. Chem. 31, Adv. Organic...2 $\frac{2}{3}$ | (2,2) | Phys. Chem. 32, Physical...3                | (3,0) |
| Phys. Chem. 31, Physical...3                  | (3,0) | Phys. Chem. 34, Laboratory...2              | (0,4) |
| Phys. Chem. 33, Laboratory...2                | (0,4) | Ind. Chem. 42, Industrial...2               | (2,0) |
| Ind. Chem. 41, Industrial...2                 | (2,0) | Geol. 34, Mineralogy...2 $\frac{2}{3}$      | (2,2) |
| Econ. 23, Economics...2                       | (2,0) | E. E. 36, Elec. Mach....3                   | (3,0) |
| Geol. 33, Mineralogy...2 $\frac{2}{3}$        | (2,2) | E. E. 36a, Elec. Lab.... $\frac{2}{3}$      | (0,2) |
| M. S. 41, Military Science...1                | (0,3) | M. S. 42, Military Science... $\frac{2}{3}$ | (0,2) |
| Elective...5                                  |       | Elective...4                                |       |
| <hr/> 20 $\frac{2}{3}$                        |       | <hr/> 18                                    |       |

## CIVIL ENGINEERING

This course is intended to prepare young men for entrance upon professional practice in civil engineering, and also to meet the needs of those who, having been engaged in engineering work without a course of instruction, desire to equip themselves for successful competition with those who have had such instruction.

In connection with the technical studies, liberal training is given in English, history, economics, pure mathematics, and the physical sciences. The course will also be found to embrace a considerable amount of drawing, shop work, and short courses in electrical engineering and mechanical engineering.

The distinctive work pursued by students in this course includes the field and office work of surveying and leveling; topographic surveying and drafting; the location and construction of railroads and highways, bridges, and other related structures; investigation of the strength of the materials of construction and the theories involved in their use; masonry construction; foundations on land and under water; a particular study of highway engineering, including a laboratory course covering all the standard tests of highway material, both bituminous and non-bituminous; municipal and sanitary engineering, including the study of bacteriology, water-supply, sewerage and drainage; and a brief study of engineering law relating to contracts and specifications. Actual design, as well as analytic investigation, is given in all cases.

A summer surveying camp of two weeks duration is required between the sophomore and junior years.

## CIVIL ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 11, General       | 3 $\frac{3}{8}$ | (3,2) |
| Drawing 13, Engr. Drawing    | 1 $\frac{1}{8}$ | (0,4) |
| English 15, Comp. and Lit.   | 3               | (3,0) |
| *History 14, Amer. Ec. Hist. | 2               | (2,0) |
| Math. 11, Trigonometry       | 3               | (3,0) |
| Math. 13, College Algebra    | 2               | (2,0) |
| M. E. 17, or M. E. 12, Shop  | 2               | (0,6) |
| M. S. 11, Military Science   | 1               | (0,3) |

18

#### *Second Semester*

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Gen. Chem. 12, General        | 3 $\frac{3}{8}$ | (3,2) |
| Drawing 14, Engr. Drawing     | 1 $\frac{1}{8}$ | (0,4) |
| English 16, Comp. and Lit.    | 3               | (3,0) |
| *Gov. 12, Amer. Nat'l. Gov't. | 2               | (2,0) |
| Math. 12, Analytics           | 3               | (3,0) |
| Math. 14, College Algebra     | 2               | (2,0) |
| M. E. 12, or M. E. 17, Shop   | 2               | (0,6) |
| M. S. 12, Military Science    | 1               | (0,3) |

18

\*Modern Language 3 Hr. Option.

### SOPHOMORE YEAR

|                                            |               |       |
|--------------------------------------------|---------------|-------|
| C. E. 21, Surveying                        | 2             | (2,0) |
| C. E. 21a, Surveying Field and Office Work | 1             | (0,3) |
| Drawing 25, Mechanical                     | $\frac{3}{8}$ | (0,2) |
| English 21, Lit. and Adv. Comp.            | 2             | (2,0) |
| Math. 21, Dif. Calculus                    | 5             | (5,0) |
| M. S. 21, Military Science                 | 1             | (0,3) |
| Physics 21, 23, General                    | 5             | (4,3) |
| Econ. 23                                   | 2             | (2,0) |

18 $\frac{3}{8}$ 

|                                            |               |       |
|--------------------------------------------|---------------|-------|
| C. E. 22, Surveying                        | 3             | (3,0) |
| C. E. 22a, Surveying Field and Office Work | $\frac{3}{8}$ | (0,2) |
| Drawing 28, Structural                     | $\frac{3}{8}$ | (0,2) |
| English 22, Lit. and Adv. Comp.            | 2             | (2,0) |
| Math. 22, Int. Calculus                    | 5             | (5,0) |
| M. S. 22, Military Science                 | 1             | (0,3) |
| Physics 22, 24, General                    | 5             | (4,3) |
| *Elective                                  | 2             |       |

19 $\frac{1}{8}$ 

C. E. 30—Summer Surveying Camp. Two weeks, 3 credits.

\*Suggest consultation with head of Department.

## JUNIOR YEAR

|                                  |    |       |                                  |    |       |
|----------------------------------|----|-------|----------------------------------|----|-------|
| C. E. 31, Mechanics -----        | 3  | (3,0) | C. E. 32, Mech. of Matr.-----    | 3  | (3,0) |
| C. E. 35, Route Surveying-----   | 3  | (3,0) | C. E. 34, Graphic Statics-----   | 1½ | (1,2) |
| C. E. 37, Structural Probs.----- | 1½ | (0,4) | C. E. 36, Roads & Pavements----- | 4  | (3,3) |
| English 31, Pub. Speaking-----   | 2  | (2,0) | C. E. 38, Struc. Problems-----   | 2  | (0,6) |
| M. E. 33, Mech. Engr.-----       | 3  | (3,0) | E. E. 36, Elec. Mach.-----       | 3  | (3,0) |
| M. E. 33a, Lab.-----             | ¾  | (0,2) | E. E. 36a, Elec. Lab.-----       | ¾  | (0,2) |
| M. S. 31, Military Science-----  | 1  | (0,3) | M. S. 32, Military Science-----  | ¾  | (0,2) |
| Physics 33, Astronomy-----       | 2  | (2,0) | Elective-----                    | 3  | --    |
| Elective-----                    | 2  |       |                                  |    |       |
|                                  |    |       |                                  |    | 18    |
|                                  | 18 |       |                                  |    |       |

## SENIOR YEAR

|                                    |     |       |                                 |   |       |
|------------------------------------|-----|-------|---------------------------------|---|-------|
| C. E. 41, Struct. Design-----      | 3   | (2,3) | Bact. 42, Sanitary-----         | 3 | (2,3) |
| C. E. 43, Road Mat. and Test.----- | 1   | (0,3) | English 32, Bus. Law-----       | 2 | (2,0) |
| C. E. 45, Reinf. Concrete-----     | 3   | (2,3) | C. E. 42, Structural Des.-----  | 4 | (2,6) |
| C. E. 49, Hydraulics-----          | 3   | (3,0) | C. E. 44, Road M. T. Lab.-----  | 1 | (0,3) |
| C. E. 43.5, Foundations-----       | 2   | (2,0) | C. E. 46, Mun. and San.-----    |   |       |
| Geology 43, Engr. Geology-----     | 2   | (2,0) | Engr.-----                      | 5 | (5,0) |
| M. E. 42a, Hydro. & Mat. Lab.----- | ¾   | (0,2) | M. S. 42, Military Science----- | ¾ | (0,2) |
| M. S. 41, Military Science-----    | 1   | (0,3) | Elective-----                   | 3 |       |
| Elective-----                      | 2   |       |                                 |   |       |
|                                    |     |       |                                 |   | 18½   |
|                                    | 17½ |       |                                 |   |       |

## ELECTRICAL ENGINEERING

Engineering deals fundamentally with the control of the energies of nature. Electrical engineering is that branch which embraces the conversion of primary energy into electrical form, the transmission and the application of this energy to innumerable devices designed for human service. Some of the more notable applications are: domestic appliances, illumination, transportation, communication and motorization of industry.

The curriculum for students in electrical engineering contains a selected series of fundamental studies which enables the student to enter any division of the field of electrical engineering.

The first two years are devoted largely to basic sciences and other subjects prerequisite to the general field of engineering. The work of the last two years is more specialized and embraces those technical courses which are pertinent to electrical engineering. During the four years a certain amount of free election of courses is provided to satisfy individual interests and needs.

The theoretical courses in science and engineering are paralleled and reinforced by strong laboratory courses through which the student may make his own determinations of the characteristics of engineering materials and machines. The laboratories are well equipped for this work.

The entire course is directed toward the development of initiative and self-reliance, so that the student may enter his chosen field with reasonable hope of usefulness and success.

## ELECTRICAL ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 11, General       | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 13, Engr. Drawing    | 1 $\frac{1}{3}$ | (0,4) |
| English 15, Comp. and Lit.   | 3               | (3,0) |
| *History 14, Amer. Ec. Hist. | 2               | (2,0) |
| Math. 11, Trigonometry       | 3               | (3,0) |
| Math. 13, College Algebra    | 2               | (2,0) |
| M. E. 17, or M. E. 12, Shop  | 2               | (0,6) |
| M. S. 11, Military Science   | 1               | (0,3) |
|                              | 18              |       |

*Second Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 12, General       | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 14, Engr. Drawing    | 1 $\frac{1}{3}$ | (0,4) |
| English 16, Comp. and Lit.   | 3               | (3,0) |
| Gov. 12, Amer. Nat'l. Gov't. | 2               | (2,0) |
| Math. 12, Analytics          | 3               | (3,0) |
| Math. 14, College Algebra    | 2               | (2,0) |
| M. E. 12, or M. E. 17, Shop  | 2               | (0,6) |
| M. S. 12, Military Science   | 1               | (0,3) |
|                              | 18              |       |

\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                               |                  |       |
|-----------------------------------------------|------------------|-------|
| Drawing 25, Mechanical                        | $\frac{2}{3}$    | (0,2) |
| C. E. 23, Surveying                           | 1                | (1,0) |
| C. E. 23a, Surveying Field<br>and Office Work | $\frac{2}{3}$    | (0,2) |
| Econ. 23, Economics                           | 2                | (2,0) |
| English 21, Lit. and Adv.<br>Comp.            | 2                | (2,0) |
| Math. 27, Calculus                            | 5                | (5,0) |
| M. E. 23, Mach. Shop                          | 1                | (0,3) |
| M. S. 21, Military Science                    | 1                | (0,3) |
| Physics 21 and 23, General                    | 5                | (4,3) |
|                                               | 18 $\frac{1}{3}$ |       |

|                                    |                  |       |
|------------------------------------|------------------|-------|
| Drawing 26, Elem. Des. & Kin.      | $\frac{2}{3}$    | (0,2) |
| E. E. 22, D. C. Circuits           | 2                | (2,0) |
| English 22, Lit. and Adv.<br>Comp. | 2                | (2,0) |
| Math. 28, Calculus                 | 3                | (3,0) |
| Math. 32, Diff. Equa.              | 2                | (2,0) |
| M. E. 24, Mach. Shop               | 1                | (0,3) |
| M. S. 22, Military Science         | 1                | (0,3) |
| Physics 22 and 24, General         | 5                | (4,3) |
| Elective                           | 2                |       |
|                                    | 18 $\frac{2}{3}$ |       |

## JUNIOR YEAR

|                                    |                  |       |
|------------------------------------|------------------|-------|
| Drawing 31, Kin. & Mach.<br>Design | 1                | (0,3) |
| E. E. 31, D. C. Machinery          | 5                | (5,0) |
| E. E. 31a, Elec. Measurement       | 1 $\frac{1}{3}$  | (0,4) |
| Eng. 31, Public Speaking           | 2                | (2,0) |
| M. E. 31, Mechanics                | 3                | (3,0) |
| M. E. 35, Power Plants             | 3                | (3,0) |
| M. S. 31, Military Science         | 1                | (0,3) |
| Elective                           | 2                |       |
|                                    | 18 $\frac{1}{3}$ |       |

|                            |                 |       |
|----------------------------|-----------------|-------|
| Drawing 32, Mach. Des.     | 1               | (0,3) |
| E. E. 32, A. C. Circuits   | 5               | (5,0) |
| E. E. 32a, Elec. Lab.      | 1 $\frac{1}{3}$ | (0,4) |
| M. E. 32, Mechanics        | 3               | (3,0) |
| M. E. 36, Thermodynamics   | 3               | (3,0) |
| M. E. 36b, Mech. Lab.      | 1               | (0,3) |
| M. S. 32, Military Science | $\frac{2}{3}$   | (0,2) |
| Elective                   | 3               |       |
|                            | 18              |       |

## SENIOR YEAR

|                              |    |       |
|------------------------------|----|-------|
| E. E. 41, A. C. Mach.        | 5  | (5,0) |
| E. E. 41a, Elec. Lab.        | 2  | (1,3) |
| E. E. 45, Elec. Design       | 1  | (0,3) |
| E. E. 47, Electronics        | 2  | (2,0) |
| M. E. 41, Mech. Engr.        | 2  | (2,0) |
| M. E. 41a, Mech. Lab.        | 1  | (0,3) |
| M. E. 49, Mech. of Materials | 3  | (3,0) |
| M. S. 41, Military Science   | 1  | (0,3) |
| Elective                     | 2  |       |
|                              | 19 |       |

|                            |                  |       |
|----------------------------|------------------|-------|
| E. E. 42, A. C. Machinery  | 3                | (3,0) |
| E. E. 42a, Elec. Lab.      | 2                | (1,3) |
| E. E. 44, Power Trans.     | 3                | (3,0) |
| E. E. 46, Elec. Design     | 1                | (0,3) |
| English 32, Business Law   | 2                | (2,0) |
| M. E. 42.5, Hydraulics     | 2                | (2,0) |
| M. S. 42, Military Science | $\frac{2}{3}$    | (0,2) |
| Elective                   | 5                |       |
|                            | 18 $\frac{2}{3}$ |       |



## MECHANICAL ENGINEERING

The course in mechanical engineering is designed to give the graduate as broad training as possible and to fit him for some specific type of work.

It embraces practically all forms of engineering which have for their objects the application of the forces of nature to the accomplishment of the processes of industry. The course is designed to give an intimate knowledge of the materials used in engineering, the laws of mechanics, and the characteristics of various types of machinery.

The shop courses embrace wood work, forge work, foundry and machine work. The purpose of this instruction is not to turn out skilled workmen but to train those faculties of mind which may best be reached through the work of the hand, and to give the student a clear knowledge of the characteristics and possibilities of the materials used in engineering.

Considerable time is given to the study of the laws of the physical sciences, in such subjects as physics, chemistry, mechanics, electricity and magnetism, and thermodynamics.

During the fourth year stress is laid on the application of the fundamental principles already covered so that the graduate may be able to design or manage those types of machines which ordinarily come under the supervision of the mechanical engineer.

The mechanical engineer should have a liberal education; therefore, in addition to the regular technical work, training is given in English, history, economics, civics, and related subjects.

## MECHANICAL ENGINEERING

## FRESHMAN YEAR

*First Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 11, General       | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 13, Engr. Drawing    | 1 $\frac{1}{3}$ | (0,4) |
| English 15, Comp. and Lit.   | 3               | (3,0) |
| *History 14, Amer. Ec. Hist. | 2               | (2,0) |
| Math. 11, Trigonometry       | 3               | (3,0) |
| Math. 13, College Algebra    | 2               | (2,0) |
| M. E. 17, or M. E. 12, Shop  | 2               | (0,6) |
| M. S. 11, Military Science   | 1               | (0,3) |

18

*Second Semester*

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Gen. Chem. 12, General        | 3 $\frac{2}{3}$ | (3,2) |
| Drawing 14, Engr. Drawing     | 1 $\frac{1}{3}$ | (0,4) |
| English 16, Comp. and Lit.    | 3               | (3,0) |
| *Gov. 12, Amer. Nat'l. Gov't. | 2               | (2,0) |
| Math. 12, Analytics           | 3               | (3,0) |
| Math. 14, College Algebra     | 2               | (2,0) |
| M. E. 12, or M. E. 17, Shop   | 2               | (0,6) |
| M. S. 12, Military Science    | 1               | (0,3) |

18

\*Modern Language 3 Hr. Option.

## SOPHOMORE YEAR

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| Drawing 25, Mechanical          | 2 $\frac{3}{8}$ | (0,2) |
| Econ. 23, Economics             | 2               | (2,0) |
| English 21, Lit. and Adv. Comp. | 2               | (2,0) |
| Math. 21, Dif. Calculus         | 5               | (5,0) |
| M. E. 23, Mach. Shop            | 1               | (0,3) |
| M. S. 21, Military Science      | 1               | (0,3) |
| Physics 21 and 23, General      | 5               | (4,3) |
| Elective                        | 2               |       |

18 $\frac{3}{8}$ 

|                                            |                 |       |
|--------------------------------------------|-----------------|-------|
| Drawing 26, Elem. Des. and Kin.            | 2 $\frac{3}{8}$ | (0,2) |
| C. E. 23, Surveying                        | 1               | (1,0) |
| C. E. 23a, Surveying Field and Office Work | 2 $\frac{3}{8}$ | (0,2) |
| English 22, Lit. and Adv. Comp.            | 2               | (2,0) |
| Math. 22, Int. Calculus                    | 5               | (5,0) |
| M. E. 24, Mach. Shop                       | 1               | (0,3) |
| M. S. 22, Military Science                 | 1               | (0,3) |
| Physics 22 and 24, General                 | 5               | (4,3) |
| Elective                                   | 2               |       |

18 $\frac{1}{8}$ 

## JUNIOR YEAR

|                               |   |       |
|-------------------------------|---|-------|
| Drawing 31, Kin. & Mach. Des. | 1 | (0,3) |
| E. E. 33, D. C. Machinery     | 4 | (4,0) |
| E. E. 33a, Elec. Measurements | 1 | (0,3) |
| English 31, Public Speaking   | 2 | (2,0) |
| M. E. 31, Mechanics           | 3 | (3,0) |
| M. E. 35, Power Plants        | 3 | (3,0) |
| M. E. 35a, Mech. Lab.         | 1 | (0,3) |
| M. S. 31, Military Science    | 1 | (0,3) |
| Elective                      | 2 |       |

18

|                            |                 |       |
|----------------------------|-----------------|-------|
| Drawing 32, Mach. Design   | 1               | (0,3) |
| E. E. 34, A. C. Circuits   | 4               | (4,0) |
| E. E. 34a, Elec. Lab.      | 1               | (0,3) |
| M. E. 38, Ind. Engr.       | 2               | (2,0) |
| M. E. 32, Mechanics        | 3               | (3,0) |
| M. E. 36, Thermodynamics   | 3               | (3,0) |
| M. E. 36a, Mech. Lab.      | 1               | (0,3) |
| M. S. 32, Military Science | 2 $\frac{3}{8}$ | (0,2) |
| Elective                   | 3               |       |

18 $\frac{3}{8}$ 

## SENIOR YEAR

|                                |                 |       |
|--------------------------------|-----------------|-------|
| E. E. 43, A. C. Machinery      | 3               | (3,0) |
| E. E. 43a, Elec. Lab.          | 1               | (0,3) |
| M. E. 43, Power Plants         | 3               | (3,0) |
| M. E. 43a, Mech. Lab.          | 1 $\frac{1}{3}$ | (0,4) |
| *M. E. 45, Gas Engines         | 2               | (2,0) |
| *M. E. 45a, Design             | 1               | (0,3) |
| M. E. 49, Mechan. of Materials | 3               | (3,0) |
| M. S. 41, Military Science     | 1               | (0,3) |
| Elective                       | 2               |       |

17 $\frac{1}{8}$ 

|                           |   |       |
|---------------------------|---|-------|
| *M. E. 47, Heat and Vent. | 2 | (2,0) |
| *M. E. 47a, Design        | 1 | (0,3) |

|                            |                 |       |
|----------------------------|-----------------|-------|
| English 32, Business Law   | 2               | (2,0) |
| M. E. 42, Hydraulics       | 3               | (3,0) |
| M. E. 42a, Mech. Lab.      | 2 $\frac{3}{8}$ | (0,2) |
| M. E. 44, Power Plants     | 3               | (3,0) |
| M. E. 44a, Lab.            | 1 $\frac{1}{3}$ | (0,4) |
| *M. E. 46, Steam Turbines  | 2               | (2,0) |
| *M. E. 46a, Design         | 1               | (0,3) |
| M. S. 42, Military Science | 2 $\frac{3}{8}$ | (0,2) |
| **Elective                 | 5               |       |

18 $\frac{3}{8}$ 

|                           |   |       |
|---------------------------|---|-------|
| *M. E. 48, Heat and Vent. | 2 | (2,0) |
| *M. E. 48a, Design        | 1 | (0,3) |

\*M. E. 47, 47a, 48, 48a are optional in place of M. E. 45, 45a, 46, 46a.

\*\*Two credit hours of electives must be approved by head of Department.

## SCHOOL OF GENERAL SCIENCE

The School of General Science offers four-year courses both in General Science and in Pre-Medicine. The course in General Science is planned to meet the needs of students desiring general training in the sciences. It is recommended for men preparing themselves for the professions and it is also available for capable men who find themselves unsuited for technical and vocational courses. The course in Pre-Medicine is described on page 84.

## GENERAL SCIENCE

## FRESHMAN YEAR

*First Semester*

|                            |    |       |
|----------------------------|----|-------|
| English 15, Comp. and Lit. | 3  | (3,0) |
| History 14, Am. Econ.      |    |       |
| History                    | 2  | (2,0) |
| Botany 11, General         | 3½ | (2,4) |
| Gen. Chem. 11, General     | 3½ | (3,2) |
| M. S. 11, Military Science | 1  | (0,3) |
| Modern Language            | 3  | (3,0) |
| Math. 11, Trigonometry     | 3  | (3,0) |

19

*Second Semester*

|                            |    |       |
|----------------------------|----|-------|
| English 16, Comp. and Lit. | 3  | (3,0) |
| Gov. 12, Amer. Gov't.      | 2  | (2,0) |
| Zool. 12, Gen. Zoology     | 3½ | (2,4) |
| Gen. Chem. 12, General     | 3½ | (3,2) |
| M. S. 12, Military Science | 1  | (0,3) |
| Modern Language            | 3  | (3,0) |
| Math. 12, Analytics        | 3  | (3,0) |

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## SOPHOMORE YEAR

|                            |    |       |
|----------------------------|----|-------|
| English 21, Lit. and Adv.  |    |       |
| Comp.                      | 2  | (2,0) |
| Physics 11, 16, General    | 3½ | (3,2) |
| M. S. 21, Military Science | 1  | (0,3) |
| Modern Language (Cont.)    | 3  | (3,0) |
| Geology 23, or Natural     |    |       |
| Science                    | 3  | (3,0) |
| Math. 21, or Approved      |    |       |
| Elective                   | 5  | (5,0) |

17½

|                            |    |       |
|----------------------------|----|-------|
| English 22, Lit. and Adv.  |    |       |
| Comp.                      | 2  | (2,0) |
| Physics 12, 16, General    | 3½ | (3,2) |
| M. S. 22, Military Science | 1  | (0,3) |
| Modern Language (Cont.)    | 3  | (3,0) |
| Nat. Science, or Approved  |    |       |
| Elect.                     | 3  | (3,0) |
| Math. 22, or Approved      |    |       |
| Elective                   | 5  | (5,0) |

17½

## JUNIOR YEAR

|                               |   |       |
|-------------------------------|---|-------|
| English 31, Public Speaking   | 2 | (2,0) |
| Psychol. 35, Psychology       | 3 | (2,2) |
| History 31, Hist. of Civiliz. | 3 | (3,0) |
| M. S. 31, Military Science    | 1 | (0,3) |
| Approved Elective             | 6 |       |
| Free Elective                 | 3 |       |

18

|                               |    |       |
|-------------------------------|----|-------|
| English 32, Business Law      | 2  | (2,0) |
| Psychol. 36, Psychology       | 3  | (2,2) |
| History 32, Hist. of Civiliz. | 3  | (3,0) |
| M. S. 32, Military Science    | ½  | (0,2) |
| Approved Elective             | 6  |       |
| Free Elective                 | 3½ |       |

18

## SENIOR YEAR

|                            |    |       |
|----------------------------|----|-------|
| Econ. 23, Economics        | 2  | (2,0) |
| M. S. 41, Military Science | 1  | (0,3) |
| Approved Elective          | 10 |       |
| Free Elective              | 5  |       |
| English 50, Thesis         | ¾  | (0,2) |

18¾

|                            |    |       |
|----------------------------|----|-------|
| Econ. 24, Economics        | 2  | (2,0) |
| Sociol. 31, Sociology      | 2  | (2,0) |
| M. S. 42, Military Science | ¾  | (0,2) |
| Approved Elective          | 8  |       |
| Free Elective              | 5½ |       |

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*Approved Electives:* Approved electives shall consist of those courses offered in the School of General Science and such other courses as are approved by a committee consisting of the Dean and class advisers of the School of General Science.

### ADDITIONAL REQUIREMENTS

*Modern Language.* For graduation in this course at least the second year of one foreign language must be completed in college.

*Electives.* Of the minimum of one hundred and forty-six semester credit hours required for graduation, not more than sixteen and two-thirds may be free electives. All other courses selected by the student must be from the list of approved electives. The approved electives must include at least eight hours, exclusive of required courses, in one of the following: calculus, chemistry, or physics; and at least eight hours, exclusive of required courses, in one of the following: economics and government and history, English, modern languages, or sociology and psychology.

*Majors and Minors.* For graduation in this course a major of at least twenty semester hours and a minor of at least fourteen semester hours must be completed, respectively, in two of the following fields: economics and government and history, English, mathematics, modern language, physics, and sociology and psychology. The credit hours which constitute the major and minor, respectively, may include the required subjects, approved electives, and the eight-hour requirements outlined above.

### PRE-MEDICAL COURSE

The course in Pre-Medicine is designed to meet the general entrance requirements of standard medical colleges. Since, however, requirements for entrance to various medical schools are not uniform, the student before choosing his electives should consult the specific requirements of the medical college of his preference.



Those preparing for the study of medicine are advised to complete four years of undergraduate work before entering a medical school. Clemson College, however, will award the degree of Bachelor of Science in Pre-Medicine to a student who, after completing all requirements of the first three years of the Pre-Medical Course, is graduated from a medical college approved by the American Medical Association, provided that during his three years at Clemson he has elected and received credit for Economics 23 and 24 and for Sociology 31.

## PRE-MEDICINE

## FRESHMAN YEAR

(Same as General Science. See page 83)

## SOPHOMORE YEAR

| <i>First Semester</i>        |                        | <i>Second Semester</i>       |          |
|------------------------------|------------------------|------------------------------|----------|
| Eng. 21, Lit. and Adv. Comp. | 2 (2,0)                | Eng. 22, Lit. and Adv. Comp. | 2 (2,0)  |
| Physics 13, General          | 4 (3,3)                | Physics 14, General          | 4 (3,3)  |
| German 21 or French 21       | 3 (3,0)                | German 22 or French 22       | 3 (3,0)  |
| Math. 23, Dif. Calculus      | 3 (3,0)                | Math. 24, Int. Calculus      | 3 (3,0)  |
| Org. Chem. 21, Organic       | 5 (3,6)                | Org. Chem. 22, Organic       | 5 (3,6)  |
| M. S. 21, Military Science   | 1 (0,3)                | M. S. 22, Military Science   | 1 (0,3)  |
| Drawing 11, Freehand         | $\frac{2}{3}$ (0,2)    |                              |          |
|                              | <hr/> 18 $\frac{2}{3}$ |                              | <hr/> 18 |

## JUNIOR YEAR

|                               |                        |                               |                        |
|-------------------------------|------------------------|-------------------------------|------------------------|
| English 31, Public Speaking   | 2 (2,0)                | English 32, Business Law      | 2 (2,0)                |
| Psychol. 35, Psychology       | 3 (2,2)                | Psychol. 36, Psychology       | 3 (2,2)                |
| History 31, Hist. of Civiliz. | 3 (3,0)                | History 32, Hist. of Civiliz. | 3 (3,0)                |
| M. S. 31, Military Science    | 1 (0,3)                | M. S. 32, Military Science    | $\frac{2}{3}$ (0,2)    |
| Anal. Chem. 23, Qualitative   | 3 (2,3)                | Anal. Chem. 24, Quant. Anal.  | 3 (2,3)                |
| Zoology 33, Adv. Zool.        | 2 $\frac{2}{3}$ (2,2)  | Zoology, or Approved Elective | 2 $\frac{2}{3}$        |
| *Elective                     | 4                      | *Elective                     | 5                      |
|                               | <hr/> 18 $\frac{2}{3}$ |                               | <hr/> 19 $\frac{1}{3}$ |

## SENIOR YEAR

|                                |                        |                             |                     |
|--------------------------------|------------------------|-----------------------------|---------------------|
| M. S. 41, Military Science     | 1 (0,3)                | M. S. 42, Military Science  | $\frac{2}{3}$ (0,2) |
| Econ. 23, Economics            | 2 (2,0)                | Econ. 24, Economics         | 2 (2,0)             |
| Sociol. 31, Sociology          | 2 (2,0)                | Phys. Chem. 32, or Approved |                     |
| Bact. 31, or Approved Elective | 3 $\frac{1}{3}$ (2,4)  | Elective                    | 3                   |
| Phys. Chem. 31, or Approved    |                        | Org. Chem. 42, or Approved  |                     |
| Elective                       | 3                      | Elective                    | 2                   |
| Org. Chem. 41, or Approved     |                        | *Elective                   | 9 $\frac{1}{3}$     |
| Elective                       | 2                      |                             |                     |
| *Elective                      | 4 $\frac{1}{3}$        |                             | <hr/> 17            |
|                                | <hr/> 17 $\frac{2}{3}$ |                             |                     |

\*Of all elective courses not more than sixteen and two-thirds hours may be free elective. All other courses selected by the student must be from the list of General Science approved electives.

## SCHOOL OF TEXTILES

The growth of the textile industry in the South has been phenomenal, and it offers many opportunities to young men for advancement to excellent positions of responsibility. At the same time there has more recently developed a very heavy demand for men specially trained in the different branches of the textile industry; namely, textile engineering, textile chemistry and dyeing, and weaving and designing. With increased competition, prices become lower and a higher quality of work is necessary in order to get the business. Increasing labor and material costs require greater economies and new and shorter processes. These results are possible through the cooperation of a competent technical staff.

The textile course in its entirety (see courses outlined below) has been developed to meet this demand for well-trained men to fill these positions. It has been cooperatively developed by many men who have spent years in the textile industry, right out in the mills, on the front line, studying these very problems and processes, and who are familiar with the type of training necessary for this work. The course has not been developed from the purely theoretical or academic standpoint.

Throughout the four years practical work with regular textile equipment in the college plant supplements the theory taught. This is done with the view of combining theory and practice and developing in the student habits of accurate observation and some skill in manipulation of the machines involved. In this work special consideration is given to economy of time, precision of results, and attention to details, as well as to methods of fundamental importance.

These courses so equip the graduate that he may confidently look forward to a successful career provided he supplements his training with the necessary energy, application, and tact.

Students in the School of Textiles are encouraged to work in the industry during their vacation periods in order to get

the practical mill experience which is necessary for advancement in the industry. This practical experience better enables the student to understand the theory underlying these manufacturing practices.

## TEXTILE ENGINEERING

The course in textile engineering is designed to give the student sound training, both theoretical and practical, in the sciences upon which manufacturing processes are based. It is a well-rounded course in that the strictly textile subjects are supplemented by related fundamental engineering subjects as well as by subjects of general educational value (See School of Textiles for complete write-up). All Yarn Manufacturing courses for freshmen, sophomores, and juniors are offered both semesters.

## TEXTILE ENGINEERING

### FRESHMAN YEAR

#### *First Semester*

|                            |                 |       |
|----------------------------|-----------------|-------|
| Gen. Chem. 11, General     | 3 $\frac{3}{8}$ | (3,2) |
| Drawing 13, Engineering    | 1 $\frac{1}{8}$ | (0,4) |
| English 15, Comp. & Lit.   | 3               | (3,0) |
| History 14, Am. Ec. Hist.  | 2               | (2,0) |
| Math. 11, Trigonometry     | 3               | (3,0) |
| Math. 13, College Algebra  | 2               | (2,0) |
| M. E. 15, Woodwork         | 2 $\frac{3}{8}$ | (0,2) |
| M. S. 11, Military Science | 1               | (0,3) |
| *Y. M. 11, Textiles        | 1 $\frac{2}{8}$ | (1,2) |

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 18 $\frac{1}{8}$ 

#### *Second Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 12, General       | 3 $\frac{3}{8}$ | (3,2) |
| Drawing 14, Engineering      | 1 $\frac{1}{8}$ | (0,4) |
| English 16, Comp. & Lit.     | 3               | (3,0) |
| Gov. 12, Amer. Nat'l. Gov't. | 2               | (2,0) |
| Math. 12, Analytics          | 3               | (3,0) |
| Math. 14, College Algebra    | 2               | (2,0) |
| M. S. 12, Military Science   | 1               | (0,3) |
| *W. D. 12, Textiles          | 1 $\frac{3}{8}$ | (1,2) |

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 17 $\frac{3}{8}$ 

### SOPHOMORE YEAR

|                             |                 |       |
|-----------------------------|-----------------|-------|
| Drawing 25, Mechanical      | 2 $\frac{3}{8}$ | (0,2) |
| English 21, Lit. & Adv.     |                 |       |
| Comp.                       | 2               | (2,0) |
| Math. 23, Dif. Calculus     | 3               | (3,0) |
| M. E. 23, Machine Shop      | 1               | (0,3) |
| M. S. 21, Military Science  | 1               | (0,3) |
| Physics 11, General         | 3 $\frac{3}{8}$ | (3,2) |
| W. D. 21, Elementary Design | 2               | (2,0) |
| W. D. 23, Weaving           | 2 $\frac{3}{8}$ | (0,2) |
| *Y. M. 21, Pickers          | 2 $\frac{3}{8}$ | (2,2) |
| **W. D. 25 or Y. M. 23,     |                 |       |
| Mill Problems               | 2               | (2,0) |

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 18 $\frac{3}{8}$ 

|                             |                 |       |
|-----------------------------|-----------------|-------|
| Drawing 26, El. Des. & Kin. | 2 $\frac{3}{8}$ | (0,2) |
| English 22, Lit. & Adv.     |                 |       |
| Comp.                       | 2               | (2,0) |
| **W. D. 26 or Y. M. 24,     |                 |       |
| Mill Problems               | 2               | (2,0) |
| M. E. 24, Machine Shop      | 1               | (0,3) |
| M. S. 22, Military Science  | 1               | (0,3) |
| Physics 12, General         | 3 $\frac{3}{8}$ | (3,2) |
| W. D. 22, Adv. Design       | 2               | (2,0) |
| W. D. 24, Weaving           | 1               | (0,3) |
| *Y. M. 22, Cards & Drawing  |                 |       |
| Frames                      | 2 $\frac{3}{8}$ | (2,2) |
| *Y. M. 23, Cotton Grading   | 2 $\frac{3}{8}$ | (0,2) |

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 16 $\frac{3}{8}$

## JUNIOR YEAR

|                            |                |       |                             |                |       |
|----------------------------|----------------|-------|-----------------------------|----------------|-------|
| M. E. 31, Mechanics        | 3              | (3,0) | Eng. 32, Bus. Law           | 2              | (2,0) |
| E. E. 35, Elec. Mach.      | 2              | (2,0) | M. E. 34, Mech. Engr.       | 3              | (3,0) |
| E. E. 35a, Elec. Lab.      | $\frac{2}{3}$  | (0,2) | M. E. 34a, Mech. Engr. Lab. | $\frac{2}{3}$  | (0,2) |
| M. S. 31, Military Science | 1              | (0,3) | M. S. 32, Military Science  | $\frac{2}{3}$  | (0,2) |
| T. Chem. 31, Tex. Chem.    | $2\frac{2}{3}$ | (2,2) | T. Chem. 32, Tex. Chem.     | $2\frac{2}{3}$ | (2,2) |
| W. D. 31, Design           | 2              | (2,0) | T. Chem. 46.5, Microscopy   | $1\frac{1}{3}$ | (1,1) |
| W. D. 33, Fabric Analysis  | 1              | (0,2) | W. D. 34, Fabric Analysis   | 1              | (0,2) |
| W. D. 35, Weaving          | $\frac{2}{3}$  | (0,2) | W. D. 36, Weaving           | $\frac{2}{3}$  | (0,2) |
| *Y. M. 31, Roving Frames   | $2\frac{2}{3}$ | (2,2) | *Y. M. 34, Spinning         | 3              | (2,3) |
| Electives                  | 3              |       | Electives                   | $3\frac{2}{3}$ |       |
| <hr/> 18 $\frac{1}{3}$     |                |       | <hr/> 18 $\frac{2}{3}$      |                |       |

## SENIOR YEAR

|                            |                |       |                            |                |       |
|----------------------------|----------------|-------|----------------------------|----------------|-------|
| Econ. 23, Econ.            | 2              | (2,0) | Sociol. 31, Sociology      | 2              | (2,0) |
| Eng. 31, Public Speaking   | 2              | (2,0) | M. S. 42, Military Science | $\frac{2}{3}$  | (0,2) |
| M. S. 41, Military Science | 1              | (0,3) | T. Chem. 42, Dyeing        | $2\frac{2}{3}$ | (2,2) |
| T. Chem. 41, Dyeing        | $2\frac{2}{3}$ | (2,2) | W. D. 44, Warp Preparation | 2              | (2,0) |
| W. D. 41, Jac. Weaving     | $1\frac{1}{3}$ | (1,2) | W. D. 46, Weaving          | $\frac{2}{3}$  | (0,2) |
| W. D. 43, Cost Finding     | 3              | (3,0) | W. D. 48, Knitting         | $\frac{2}{3}$  | (0,2) |
| W. D. 45, Pattern Weaving  | $\frac{2}{3}$  | (0,2) | Y. M. 42, Combers          | $1\frac{1}{3}$ | (1,2) |
| Y. M. 43, Doubling & Draft | $1\frac{1}{3}$ | (1,2) | Y. M. 44, Mill Econ.       | 2              | (2,0) |
| Y. M. 50, Thesis           | 1              | (0,2) | W. D. 50, Thesis           | 1              | (0,2) |
| Electives                  | $2\frac{2}{3}$ |       | Electives                  | $4\frac{2}{3}$ |       |
| <hr/> 18 $\frac{1}{3}$     |                |       | <hr/> 18                   |                |       |

\*Offered both semesters.

\*\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Textile Engineering.

## TEXTILE CHEMISTRY AND DYEING

The many new chemical processes now available for use in the bleaching, dyeing, and finishing of textiles are largely responsible for the present demand for chemists in the textile industry. Such processes when properly executed give new, novel and desirable results; they require, however, the careful supervision of technically trained men.

This four-year course has been planned to give a thorough training in the fundamental theories of chemistry and dyeing with special emphasis on the application of these theories to the practical accomplishments of the textile industry. (See School of Textiles for complete write-up.)



## TEXTILE CHEMISTRY AND DYEING

## FRESHMAN YEAR

*First Semester*

|                            |                 |       |
|----------------------------|-----------------|-------|
| Gen. Chem. 13, General     | 4 $\frac{1}{3}$ | (3,4) |
| Drawing 13, Engineering    | 1 $\frac{1}{3}$ | (0,4) |
| English 15, Comp. & Lit.   | 3               | (3,0) |
| History 14, Am. Ec. Hist.  | 2               | (2,0) |
| Math. 11, Trigonometry     | 3               | (3,0) |
| Math. 13, College Algebra  | 2               | (2,0) |
| M. E. 15, Woodwork         | 2 $\frac{3}{8}$ | (0,2) |
| M. S. 11, Military Science | 1               | (0,3) |
| *Y. M. 11, Textiles        | 1 $\frac{2}{3}$ | (1,2) |

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*Second Semester*

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 14, General       | 4 $\frac{1}{3}$ | (3,4) |
| Drawing 14, Engineering      | 1 $\frac{1}{3}$ | (0,4) |
| English 16, Comp. & Lit.     | 3               | (3,0) |
| Gov. 12, Amer. Nat'l. Gov't. | 2               | (2,0) |
| Math. 12, Analytics          | 3               | (3,0) |
| Math. 14, College Algebra    | 2               | (2,0) |
| M. S. 12, Military Science   | 1               | (0,3) |
| *W. D. 12, Textiles          | 1 $\frac{2}{3}$ | (1,2) |

18 $\frac{1}{3}$ 

## SOPHOMORE YEAR

|                             |                 |       |
|-----------------------------|-----------------|-------|
| Anal. Chem. 21, Qualitative | 4               | (2,6) |
| Eng. 21, Lit. and Adv.      |                 |       |
| Comp.                       | 2               | (2,0) |
| Math. 23, Diff. Calculus    | 3               | (3,0) |
| Physics 11, 15, General     | 3 $\frac{2}{3}$ | (3,2) |
| W. D. 21, Elem. Design      | 2               | (2,0) |
| W. D. 23, Weaving           | 2 $\frac{3}{8}$ | (0,2) |
| M. S. 21, Military Science  | 1               | (0,3) |
| *Y. M. 23, Cotton Grading   | 2 $\frac{3}{8}$ | (0,2) |

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|                              |                 |       |
|------------------------------|-----------------|-------|
| Anal. Chem. 22, Quantitative | 4               | (2,6) |
| Eng. 22, Lit. and Adv.       |                 |       |
| Comp.                        | 2               | (2,0) |
| Math. 24, Int. Calculus      | 3               | (3,0) |
| Physics 12, 16, General      | 3 $\frac{2}{3}$ | (3,2) |
| W. D. 22, Adv. Design        | 2               | (2,0) |
| W. D. 24, Weaving            | 1               | (0,3) |
| M. S. 22, Military Science   | 1               | (0,3) |

16 $\frac{2}{3}$ 

\*Offered both semesters.

## JUNIOR YEAR

|                             |                 |       |
|-----------------------------|-----------------|-------|
| Phys. Chem. 31, Physical    | 3               | (3,0) |
| Econ. 23, Economics         | 2               | (2,0) |
| Eng. 31, Pub. Speaking      | 2               | (2,0) |
| T. C. 35, Textile Chemistry | 5               | (4,3) |
| T. C. 47, Microscopy        | 1 $\frac{1}{3}$ | (1,1) |
| M. S. 31, Military Science  | 1               | (0,3) |
| Electives                   | 4 $\frac{2}{3}$ |       |

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|                               |                 |       |
|-------------------------------|-----------------|-------|
| Phys. Chem. 32, Physical      | 3               | (3,0) |
| Sociol. 31, Sociology         | 2               | (2,0) |
| Eng. 32, Business Law         | 2               | (2,0) |
| T. C. 38, Textile Chemistry   | 5               | (4,3) |
| Anal. Chem. 31, Adv.          |                 |       |
| Quantitative                  | 1 $\frac{1}{4}$ | (0,4) |
| M. S. 32, Military Science    | 2 $\frac{3}{8}$ | (0,2) |
| Anal. Chem. 46, Stoichiometry | 2               | (2,0) |
| Electives                     | 3               |       |

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## SENIOR YEAR

|                            |                 |       |
|----------------------------|-----------------|-------|
| T. C. 41.5 Dyeing          | 5 $\frac{1}{3}$ | (4,4) |
| T. C. 43, Cellulose        | 2               | (2,0) |
| T. C. 45, Textile Anal.    | 2               | (1,3) |
| Phys. Chem. 41, Colloids   | 2               | (2,0) |
| T. C. 33, Tech. Writing    | 1               | (1,0) |
| M. S. 41, Military Science | 1               | (0,3) |
| T. C. 50, Thesis           | 1               | (0,3) |
| Electives                  | 3 $\frac{2}{3}$ |       |

18

|                            |                 |       |
|----------------------------|-----------------|-------|
| T. C. 42.5 Dyeing          | 5 $\frac{1}{3}$ | (4,4) |
| T. C. 48, Synthetic Fibers | 2               | (2,0) |
| T. C. 46, Textile Anal.    | 2               | (1,3) |
| Phys. Chem. 42, Colloids   | 2               | (2,0) |
| T. C. 34, Tech. Writing    | 1               | (1,0) |
| M. S. 42, Military Science | 2 $\frac{3}{8}$ | (0,2) |
| T. C. 51, Thesis           | 1               | (0,3) |
| Electives                  | 4               |       |

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## WEAVING AND DESIGNING

This course has been provided to meet a growing demand from those who desire special instruction relating to the weav-

ing and designing of fabrics. Special attention is paid to decorative design, dobby design, Jacquard design, pattern weaving, and rayon processing. (See School of Textiles, for complete account).

## WEAVING AND DESIGNING

### FRESHMAN YEAR

(Same as Textile Engineering. See page 87)

### SOPHOMORE YEAR

#### First Semester

|                            |     |       |
|----------------------------|-----|-------|
| Drawing 25, Mechanical     | 2½  | (0,2) |
| English 21, Lit. & Adv.    |     |       |
| Comp.                      | 2   | (2,0) |
| Math. 23, Dif. Calculus    | 3   | (3,0) |
| M. E. 23, Machine Shop     | 1   | (0,3) |
| M. S. 21, Military Science | 1   | (0,3) |
| Physics 11, General        | 3½  | (3,2) |
| W. D. 21, Elem. Design     | 2   | (2,0) |
| W. D. 23, Weaving          | 2½  | (0,2) |
| *Y. M. 21, Pickers         | 2½  | (2,2) |
| **W. D. 25 or Y. M. 23,    |     |       |
| Mill Problems              | 2   | (2,0) |
|                            | 18½ |       |

#### Second Semester

|                            |     |       |
|----------------------------|-----|-------|
| Arch. 14, Drawing          | 1½  | (0,4) |
| English 22, Lit. & Adv.    |     |       |
| Comp.                      | 2   | (2,0) |
| M. E. 24, Machine Shop     | 1   | (0,3) |
| M. S. 22, Military Science | 1   | (0,3) |
| Physics 12, General        | 3½  | (3,2) |
| W. D. 22, Advanced Des.    | 2   | (2,0) |
| W. D. 24, Weaving          | 1   | (0,3) |
| *Y. M. 22, Cards & Drawing |     |       |
| Frames                     | 2½  | (2,2) |
| **W. D. 26 or Y. M. 24,    |     |       |
| Mill Problems              | 2   | (2,0) |
| *Y. M. 28                  | 2½  | (0,2) |
|                            | 17½ |       |

### JUNIOR YEAR

|                              |     |       |
|------------------------------|-----|-------|
| Arch. 23.5 Dec. Des. & Color | 1   | (0,3) |
| E. E. 35, Elec. Mach.        | 2   | (2,0) |
| E. E. 35a, Elec. Lab.        | 2½  | (0,2) |
| M. S. 31, Military Science   | 1   | (0,3) |
| M. E. 31, Mechanics          | 3   | (3,0) |
| W. D. 31, Dobby Design       | 2   | (2,0) |
| W. D. 33, Fabric Analysis    | 1   | (0,2) |
| W. D. 35, Weaving            | 2½  | (0,2) |
| W. D. 37, Rayon Processing   | 1½  | (1,2) |
| *Y. M. 31, Roving Frames     | 2½  | (2,2) |
| Electives                    | 3   |       |
|                              | 18½ |       |

|                               |    |       |
|-------------------------------|----|-------|
| Arch. 24.5, Dec. Des. & Color | 1  | (0,3) |
| English 32, Business Law      | 2  | (2,0) |
| M. E. 34, Mech. Engr.         | 3  | (3,0) |
| M. E. 34a, M. E. Lab.         | 2½ | (0,2) |
| M. S. 32, Military Science    | 2½ | (0,2) |
| W. D. 32, Adv. Dobby Des.     | 2  | (2,0) |
| W. D. 34, Fabric Analysis     | 1  | (0,2) |
| W. D. 36, Weaving             | 2½ | (0,2) |
| *Y. M. 34, Spinning           | 3  | (2,3) |
| Electives                     | 4  |       |
|                               | 18 |       |

### SENIOR YEAR

|                             |     |       |
|-----------------------------|-----|-------|
| Arch. 33.5, Dec. Des. &     |     |       |
| Comp.                       | 1   | (0,3) |
| English 31, Public Speaking | 2   | (2,0) |
| Econ. 23, Econ.             | 2   | (2,0) |
| M. S. 41, Military Science  | 1   | (0,3) |
| T. Chem. 39, Dyeing         | 2½  | (0,2) |
| W. D. 41, Jacquard Weaving  | 1½  | (1,2) |
| W. D. 43, Cost Finding      | 3   | (3,0) |
| W. D. 45.5, Pattern Weaving | 2   | (0,6) |
| Y. M. 43, Doubling & Dftg.  | 1½  | (1,2) |
| Electives                   | 3½  |       |
|                             | 18½ |       |

|                              |    |       |
|------------------------------|----|-------|
| Sociol. 31, Sociology        | 2  | (2,0) |
| M. S. 42, Military Science   | 2½ | (0,2) |
| Text. Chem. 46.5, Microscopy | 1½ | (1,1) |
| Text. Chem. 40, Dyeing       | 2½ | (0,2) |
| W. D. 42, Jacquard Design    | 2½ | (1,4) |
| W. D. 44, Warp Preparation   | 2  | (2,0) |
| W. D. 46.5, Pattern Weaving  | 2  | (0,6) |
| W. D. 48, Knitting           | 2½ | (0,2) |
| W. D. 50, Thesis             | 1  | (0,2) |
| Y. M. 44, Mill Econ.         | 2  | (2,0) |
| Electives                    | 3½ |       |
|                              | 18 |       |

\*Y. M. Courses offered both semesters.

\*\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Weaving and Designing.

## SCHOOL OF VOCATIONAL EDUCATION

The School of Vocational Education offers four-year curricula leading to the degree of Bachelor of Science in Vocational Agricultural Education, Education, Industrial Education, and Textile Industrial Education. Courses are also made available for students of the other Schools of the College. By making a proper program of studies it is possible for students to meet the professional requirements in subject matter and in education and to qualify for the teacher's certificate in this State. Students who are planning to teach in high schools are advised to plan not only their courses in education, but also their subject-matter courses so as to fulfill the State requirements for the particular type of work which they expect to teach in the state. (The office of the School of Vocational Education has a file of information on this subject.) Students who are interested are invited to consult the Dean and other members of the Vocational Education staff for information.

Practice teaching in several subjects, in cooperation with the State Department of Education and nearby school systems, constitutes part of the student's training. Students should plan this work well in advance so that they may conform to the schedule of the high school including registration at the opening of school. Publishers of State-adopted textbooks have been invited to place copies of their publications on file in the Education library, and many have responded. These publications are available for examination by teachers and prospective teachers during the regular session and during summer school.

While employment cannot be guaranteed, the School of Vocational Education maintains a Teacher Placement Service with which students who desire aid in securing employment may register and from which superintendents of schools and other employers may receive assistance in communicating with, or interviewing prospective teachers. Both students and employers of teachers are invited to use this service. The Office of the Teacher Placement Service is in Room 103, Education Building.

## VOCATIONAL AGRICULTURAL EDUCATION

The curriculum in Agricultural Education is designed to give the student a cross-section of the types of agriculture in the State and to provide an opportunity to study agriculture from the standpoint of the teacher, the practical farmer, and the closely related agricultural business man where the farm as a unit is emphasized.

Professional training of the student is planned to provide an opportunity for the study of a cross-section of rural life and its organizations with particular emphasis on the contribution of the public school. Students participate in community organizations as a part of their first-hand training. They are taught to cooperate with State and National organizations which affect rural life and agriculture directly and indirectly. This curriculum with the central aim on teaching is designed primarily to train students for the professional field of teaching vocational agriculture and other closely related fields in which a knowledge of the business of farming is essential, and in which skill in dealing with groups of people as well as with individuals is important.

One hundred forty semester hours of credit are required for graduation. A minimum of fifty-eight semester hours of courses in technical agriculture are required. These fifty-eight semester hours of technical agriculture are to be distributed among ten major phases of agriculture with a minimum distribution of semester hours as follows: Agricultural Economics and Rural Sociology, 11  $\frac{2}{3}$ ; Agricultural Engineering, 4  $\frac{2}{3}$ ; Agronomy, 11  $\frac{2}{3}$ ; Animal Husbandry, 8  $\frac{1}{3}$ ; Plant Pathology, 2  $\frac{2}{3}$ ; Dairy Husbandry, 2  $\frac{2}{3}$ ; Applied Entomology, 2  $\frac{2}{3}$ ; Horticulture, 8  $\frac{1}{3}$ ; Poultry Husbandry, 2  $\frac{2}{3}$ ; Veterinary Science, 2  $\frac{2}{3}$ . Additional hours may be elected in any one of these branches. Fourteen semester hours of free electives are allowed.

Teachers of agriculture and others who are interested in advanced training in Agricultural Education should procure a copy of the 1940 summer school catalog as soon as published. A number of the courses listed in the Agricultural Education curriculum and other appropriate courses in Agricultural Education will be offered in the 1940 summer session.



## VOCATIONAL AGRICULTURAL EDUCATION

## FRESHMAN YEAR

*First Semester*

|                          |                 |       |
|--------------------------|-----------------|-------|
| Agr. 11, Field Crops     | 3               | (3,0) |
| Gen. Chem. 11, General   | 3 $\frac{2}{3}$ | (3,2) |
| Draw. 11, Freehand       | $\frac{2}{3}$   | (0,2) |
| Eng. 15, Comp. & Lit.    | 3               | (3,0) |
| Math. 19, Applied Math.  | 3               | (3,0) |
| M. S. 11, Mil. Science   | 1               | (0,3) |
| Voc. Ed. 11, Orientation | 1               | (1,0) |
| Zoology 21, Gen. Zoology | 2 $\frac{2}{3}$ | (2,2) |

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*Second Semester*

|                                        |                 |       |
|----------------------------------------|-----------------|-------|
| A. H. 12, Types, Breeds & Mkt. Classes | 2 $\frac{2}{3}$ | (2,2) |
| Bot. 16, Agricultural                  | 3 $\frac{1}{3}$ | (2,4) |
| Gen. Chem. 12, General                 | 3 $\frac{2}{3}$ | (3,2) |
| Draw. 12, Mechanical                   | $\frac{2}{3}$   | (0,2) |
| Eng. 16, Comp. & Lit.                  | 3               | (3,0) |
| Gov. 12, Amer. Nat'l. Gov't.           | 2               | (2,0) |
| M. S. 12, Military Science             | 1               | (0,3) |

16 $\frac{1}{3}$ 

## SOPHOMORE YEAR

|                            |                 |       |
|----------------------------|-----------------|-------|
| Ag. Ec. 22, Ag. Econ.      | 3               | (3,0) |
| Ag. Engr. 22, Farm Mach.   | 2 $\frac{2}{3}$ | (2,2) |
| Org. Chem. 25, Organic     | 2               | (2,0) |
| Eng. 21, Lit. & Adv. Comp. | 2               | (2,0) |
| Hort. 22, General Hort.    | 3               | (2,3) |
| M. S. 21, Military Science | 1               | (0,3) |
| Electives                  | 3               |       |

16 $\frac{2}{3}$ 

## Suggested Electives:

|                          |                 |       |
|--------------------------|-----------------|-------|
| Bact. 31, Gen. Bact.     | 3 $\frac{1}{3}$ | (2,4) |
| Econ. 23, Prin. of Econ. | 2               | (2,0) |
| Hist. 14, Am. Ec. Hist.  | 2               | (2,0) |
| Rel. 23, Life of Christ  | 2               | (2,0) |

|                                 |                 |       |
|---------------------------------|-----------------|-------|
| Agr. 20, Soils                  | 2 $\frac{2}{3}$ | (2,2) |
| Dairy 21, Dairying              | 2 $\frac{2}{3}$ | (2,2) |
| Eng. 22, Lit. & Adv. Comp.      | 2               | (2,0) |
| Geol. 21, Agric.                | 3               | (3,0) |
| M. S. 22, Military Science      | 1               | (0,3) |
| Phys. 27, General               | 3 $\frac{2}{3}$ | (3,2) |
| Voc. Ed. 22, Int. to Voc. Ed. 1 | 1               | (1,0) |

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## Suggested Electives:

|                           |   |       |
|---------------------------|---|-------|
| Econ. 24, Prin. of Econ.  | 2 | (2,0) |
| Econ. 32, Money & Banking | 3 | (3,0) |
| Hist. 14, Am. Econ. Hist. | 2 | (2,0) |

## JUNIOR YEAR

|                                |                 |       |
|--------------------------------|-----------------|-------|
| Agr. 31, Fertilizers           | 2               | (2,0) |
| A. H. 31, Feeds & Feed         | 3               | (3,0) |
| Eng. 31, Pub. Speak            | 2               | (2,0) |
| M. S. 31, Mil. Science         | 1               | (0,3) |
| Voc. Ed. 31, Int. to Ag. Ed. 3 | 1               | (1,6) |
| P. H. 32, Farm Poultry         | 2 $\frac{2}{3}$ | (2,2) |
| Electives                      | 5 $\frac{1}{3}$ |       |

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## Suggested Electives:

|                                         |                 |       |
|-----------------------------------------|-----------------|-------|
| *Ag. Ec. 35, Cooperation in Agriculture | 3               | (3,0) |
| *Agr. 33, Forage Crops                  | 3               | (3,0) |
| *A. H. 35, Farm Meats                   | 2               | (0,6) |
| *A. H. 37, Horse & Mule Pr.             | 2 $\frac{2}{3}$ | (2,2) |
| *Hort. 31, Plant Prop.                  | 2 $\frac{2}{3}$ | (2,2) |
| Dairy 31, Judging                       | 1               | (0,3) |
| *Hort. 33, Prod. of Hort. Crops         | 2 $\frac{2}{3}$ | (2,2) |
| Soc. 31, Elem. Soc.                     | 2               | (2,0) |

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Ag. Ec. 32, Farm Org. & Mgt.  | 2 $\frac{2}{3}$ | (2,2) |
| Ag. Engr. 38, Soil Conserv.   | 2               | (1,3) |
| M. S. 32, Military Science    | $\frac{2}{3}$   | (0,2) |
| Z. & E. 31, Int. & Appl. Ent. | 2 $\frac{2}{3}$ | (2,2) |
| Voc. Ed. 30, Ed. Psych.       | 3               | (3,0) |
| Electives                     | 8 $\frac{1}{3}$ |       |

19 $\frac{1}{3}$ 

## Suggested Electives:

|                            |                 |       |
|----------------------------|-----------------|-------|
| *Ag. Ec. 36, Stat. Methods | 3               | (3,0) |
| *A. H. 34, Pork Production | 2 $\frac{2}{3}$ | (2,2) |
| *Hort. 32, Landscape Des.  | 2 $\frac{2}{3}$ | (2,2) |
| *Z. & E. 44, Beekeeping    | 2 $\frac{2}{3}$ | (2,2) |
| *A. H. 32, Judging         | 1               | (0,3) |
| A. H. 42, Sheep Production | 2 $\frac{2}{3}$ | (2,2) |
| Eng. 32, Bus. Law          | 2               | (2,0) |

## SENIOR YEAR

|                               |                 |       |
|-------------------------------|-----------------|-------|
| Bot. 45, Plant Pathology      | 2 $\frac{2}{3}$ | (2,2) |
| M. S. 41, Military Science    | 1               | (0,3) |
| Voc. Ed. 41, Prin. Voc. Ed. 4 | 4               | (1,9) |
| Electives                     | 10              |       |

17 $\frac{2}{3}$ 

## Suggested Electives:

|                            |                 |       |
|----------------------------|-----------------|-------|
| *Ag. Ec. 41, Prin. of Mkt. | 3               | (3,0) |
| *Ag. Ec. 43, Fin. & Acct.  | 3               | (3,0) |
| *Agr. 43, Farm Problems    | 2               | (2,0) |
| *Agr. 45, Crop Nutrition   | 2               | (2,0) |
| *Agr. 53, Cotton           | 2               | (2,0) |
| *A. H. 43, Beef Prod.      | 2 $\frac{2}{3}$ | (2,2) |
| Vet. Sci. 41, Anat. & Phy. | 2 $\frac{2}{3}$ | (2,2) |
| *A. H. 45, Judging         | 1               | (0,3) |

|                                 |                 |        |
|---------------------------------|-----------------|--------|
| M. S. 42, Military Science      | $\frac{2}{3}$   | (0,2)  |
| Vet. Sci. 42, Ani. Diseases     | 2 $\frac{2}{3}$ | (2,2)  |
| Voc. Ed. 40, Pract. Teach.      | 5               | (0,15) |
| Voc. Ed. 42, Meth. in Ag. Ed. 3 | 3               | (3,0)  |
| Electives                       | 5 $\frac{2}{3}$ |        |

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## Suggested Electives:

|                               |                 |       |
|-------------------------------|-----------------|-------|
| *Ag. Ec. 42, Rural Social.    | 3               | (3,0) |
| *Agr. 42, Soil Fert. & Mgt.   | 2               | (2,0) |
| *Hort. 52, Com. Pomology      | 2 $\frac{2}{3}$ | (2,2) |
| *Hort. 54, Truck Crops        | 2 $\frac{2}{3}$ | (2,2) |
| P. H. 42, Poultry Prod. & Mg. | 2 $\frac{2}{3}$ | (2,2) |

\*These courses will be scheduled for students majoring in Vocational Agricultural Education.

## EDUCATION

The purpose of this curriculum is to train for high school teaching in the fields indicated below. The curriculum has been planned with the view of providing both subject matter and professional courses. It meets the State requirements for certification in South Carolina under the new regulations. The subject-matter fields are designated as teaching majors and teaching minors. The technical and vocational groups are included with the purpose of providing an occupational background for teachers. Free electives are included to permit the student to exercise his own choice in at least a part of his work. Students who desire to enter into the Vocational Agriculture field or the Industrial Education field should enroll in one of those specialized curricula. (See pages 92 and 95.) The Education Curriculum, with appropriate electives, provides excellent preparation for teachers of physical education. (See Voc. Ed. 33, 49.5, 58, 64, etc.)

For the degree of Bachelor of Science in Education the following grouping must be made: a teaching major of 20 semester hours; a first teaching minor of at least 12 semester hours; a second teaching minor of at least 12 semester hours (the semester hours in the teaching major and teaching minor groups may include required subjects in these fields as indicated below); at least 12 semester hours in a vocational or technical field, and 14 semester hours free electives are also required. Other elections are subject to the approval of the Dean. A total of 140 semester hours is required for graduation. The groups of teaching majors, teaching minors, etc., are indicated below.

## EDUCATION

## FRESHMAN YEAR

*First Semester*

|                             |    |       |
|-----------------------------|----|-------|
| Botany 13, Agricultural     | 2½ | (2,2) |
| Gen. Chem. 11, General      | 3½ | (3,2) |
| English 15, Comp. and Lit.  | 3  | (3,0) |
| History 14, Am. Econ. Hist. | 2  | (2,0) |
| Math. 11, Trigonometry      | 3  | (3,0) |
| Math 13, College Algebra    | 2  | (2,0) |
| M. S. 11, Military Science  | 1  | (0,3) |
| Vocational Education        | 2  |       |

*Second Semester*

|                              |    |       |
|------------------------------|----|-------|
| Botany 14, Agricultural      | 3½ | (2,4) |
| Gen. Chem. 12, General       | 3½ | (3,2) |
| English 16, Comp. and Lit.   | 3  | (3,0) |
| Gov. 12, Amer. Nat'l. Gov't. | 2  | (2,0) |
| Math. 12, Analytics          | 3  | (3,0) |
| Math. 14, College Algebra    | 2  | (2,0) |
| M. S. 12, Military Science   | 1  | (0,3) |

## SOPHOMORE YEAR

|                                                |       |                                            |       |
|------------------------------------------------|-------|--------------------------------------------|-------|
| Bact. 31, General Bacteriology 3 $\frac{1}{8}$ | (2,4) | Econ. 24, Economics -----2                 | (2,0) |
| English 21, Lit. and Adv. Comp. -----2         | (2,0) | English 22, Lit. and Adv. Comp. -----2     | (2,0) |
| M. S. 21, Military Science-----1               | (0,3) | M. S. 22, Military Science-----1           | (0,3) |
| Org. Chem. 23 or Anal. Chem. 21 -----3         | (2,3) | Org. Chem. 24 or Anal. Chem. 22 -----3     | (2,3) |
| Zool. 21, Gen. Zoology-----2 $\frac{2}{3}$     | (2,2) | Physics 12-16 or 22-24-----3 $\frac{2}{3}$ | (3,2) |
| Physics 11-15 or 21-23-----3 $\frac{3}{8}$     | (3,2) | or 5                                       |       |
| or 5                                           |       | Voc. or Tech. group -----3                 |       |
| Voc. or Tech. group-----3                      |       | Free electives -----2                      |       |
| <hr/> 18 $\frac{1}{8}$ or 20 $\frac{3}{8}$     |       | <hr/> 16 $\frac{2}{3}$ or 18 $\frac{2}{3}$ |       |

## JUNIOR YEAR

|                                                 |       |                                               |       |
|-------------------------------------------------|-------|-----------------------------------------------|-------|
| English 31, Public Speaking-----2               | (2,0) | Sociol. 31, Sociology -----2                  | (2,0) |
| M. S. 31, Military Science-----1                | (0,3) | M. S. 32, Military Science----- $\frac{2}{3}$ | (0,2) |
| Voc. Ed. 35, Psychology-----3                   | (2,2) | Voc. Ed. 45, Teach. Science-----3             | (3,0) |
| Voc. Ed. 39, Principles-----3                   | (3,0) | Voc. or Tech. group-----3                     |       |
| Ent. 31, Int. to Appl. Ent.-----2 $\frac{2}{3}$ | (2,2) | Teaching Major and Minor-----4                |       |
| Voc. or Tech. group-----3                       |       | Free electives -----5                         |       |
| Teaching Major and Minor-----2 $\frac{2}{3}$    |       | <hr/> 17 $\frac{2}{3}$                        |       |
| <hr/> 17 $\frac{1}{8}$                          |       |                                               |       |

## SENIOR YEAR

|                                   |       |                                                  |       |
|-----------------------------------|-------|--------------------------------------------------|-------|
| Voc. Ed. 49, Health and P. Ed. 2  | (2,0) | Voc. Ed. 47, Hist. & Philos. of Education -----2 | (2,0) |
| Voc. Ed. 51, Pract. Teaching 3    | (0,6) | Voc. Ed. 52, Pract. Teaching 3                   | (0,6) |
| Voc. Ed. 59, Administration-----2 | (2,0) | M. S. 42, Military Science----- $\frac{2}{3}$    | (0,2) |
| M. S. 41, Military Science-----1  | (0,3) | Teaching Major and Minor-----5 $\frac{2}{3}$     |       |
| Teaching Major and Minor-----6    |       | Free electives -----5                            |       |
| Free electives -----2             |       | <hr/> 16 $\frac{1}{8}$                           |       |
| <hr/> 16                          |       |                                                  |       |

I TEACHING MAJORS: 1. Biological Science, including Botany, Bacteriology, and Zoology. 2. Chemistry. 3. Mathematics. 4. Physics. 5. Social Science.

II TEACHING MINORS: First Teaching Minor: One of these above not classed as major.

Second Teaching Minor: Social Science, including History, Economics.

1. Agriculture—Agronomy, Animal Husbandry, Bacteriology

and Botany, Horticulture, Poultry.

2. Textiles—Textile Chemistry, Weaving and Designing, Yarn Manufacturing.

3. Engineering—Architecture, Drawing, Civil, Electrical, Mechanical.

### III VOCATIONAL OR TECHNICAL GROUPS

## INDUSTRIAL EDUCATION

The curriculum in Industrial Education is intended to prepare students to teach industrial subjects, industrial arts, drawing, manual training, metal work, etc., in the high schools and to supervise the teaching of evening trade classes. The four-year curriculum includes the study of the major industries of South Carolina. The freshman year includes training in textiles. Students who complete this curriculum are prepared to teach in-

dustrial arts, manual training, drawing, woodwork, home mechanics, general subjects, and mathematics. A total of 140 semester hours is required for graduation. Provision is made for 14 semester hours free electives.

There has been, and is at present, an unusual demand for Clemson men trained in this field.

## INDUSTRIAL EDUCATION

### FRESHMAN YEAR

#### First Semester

|                            |                 |       |
|----------------------------|-----------------|-------|
| Gen. Chem. 11, General     | 3 $\frac{3}{8}$ | (3,2) |
| Drawing 13, Engineering    | 1 $\frac{1}{8}$ | (0,4) |
| English 15, Comp. & Lit.   | 3               | (3,0) |
| History 14, Am. Ec. Hist.  | 2               | (2,0) |
| Math. 15, College Algebra  | 3               | (3,0) |
| M. E. 17, or 12, Shop      | 2               | (0,6) |
| M. S. 11, Military Science | 1               | (0,3) |
| Voc. Ed. 11, Orientation   | 1               | (1,0) |
| Y. M. 11, Gen. Textiles    | 1 $\frac{3}{8}$ | (1,2) |

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 18 $\frac{3}{8}$ 

Summer industrial employment minimum of four weeks.

#### Second Semester

|                              |                 |       |
|------------------------------|-----------------|-------|
| Gen. Chem. 12, General       | 3 $\frac{3}{8}$ | (3,2) |
| Drawing 14, Engineering      | 1 $\frac{1}{8}$ | (0,4) |
| Eng. 16, Comp. & Lit.        | 3               | (3,0) |
| Gov. 12, Amer. Nat'l. Gov't. | 2               | (2,0) |
| Math. 11, Trigonometry       | 3               | (3,0) |
| M. E. 12, or 17, Shop        | 2               | (0,6) |
| M. S. 12, Military Science   | 1               | (0,3) |
| W. D. 12, Gen. Textiles      | 1 $\frac{3}{8}$ | (1,2) |

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 17 $\frac{3}{8}$ 

### SOPHOMORE YEAR

|                                               |                 |       |
|-----------------------------------------------|-----------------|-------|
| C. E. 23, Surveying                           | 1               | (1,0) |
| C. E. 23a, Surveying Field<br>and Office Work | $\frac{2}{8}$   | (0,2) |
| Draw. 25, Mechanical                          | $\frac{2}{8}$   | (0,2) |
| Eng. 21, Lit. & Adv. Comp.                    | 2               | (2,0) |
| Econ. 23, Economics                           | 2               | (2,0) |
| *Math. 25, Industrial Math.                   | 3               | (3,0) |
| M. E. 22, Mat. of Engr.                       | 2               | (2,0) |
| M. E. 23, Machine Shop                        | 1               | (0,3) |
| M. S. 21, Military Science                    | 1               | (0,3) |
| Physics 11 & 15, General                      | 3 $\frac{3}{8}$ | (3,2) |

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Summer industrial employment minimum of four weeks.

|                                            |                 |       |
|--------------------------------------------|-----------------|-------|
| Draw. 26, El. Des. & Kin.                  | $\frac{2}{8}$   | (0,2) |
| Eng. 22, Lit. & Adv. Comp.                 | 2               | (2,0) |
| *Math. 26, Industrial Math.                | 3               | (3,0) |
| M. E. 24, Machine Shop                     | 1               | (0,3) |
| M. S. 22, Military Science                 | 1               | (0,3) |
| Physics 12 & 16                            | 3 $\frac{3}{8}$ | (3,2) |
| Voc. Ed. 22, Intro. Voc. Ed.               | 1               | (1,0) |
| Voc. Ed. 28, Obs. of Voc.<br>Ind. Teaching | 1               | (0,3) |
| Electives                                  | 3 $\frac{1}{8}$ |       |

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 16 $\frac{3}{8}$ 

### JUNIOR YEAR

|                                       |                 |       |
|---------------------------------------|-----------------|-------|
| Voc. Ed. 33.5 Art Metal<br>Work       | 2               | (1,3) |
| Eng. 31, Public Speak                 | 2               | (2,0) |
| M. S. 31, Military Science            | 1               | (0,3) |
| Voc. Ed. 31.6, Ind. Arts              | 2 $\frac{3}{8}$ | (2,2) |
| Voc. Ed. 35, Psychol. for<br>Teachers | 3               | (2,2) |
| Voc. Ed. 61, Ind. Lab.                | 2               | (0,6) |
| Voc. Ed. 39, Prin. of Sec. Ed.        | 3               | (3,0) |
| Electives                             | 2               |       |

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 17 $\frac{3}{8}$ 

\*For education students only.

|                                          |                 |       |
|------------------------------------------|-----------------|-------|
| Eng. 32, Business Law                    | 2               | (2,0) |
| M. E. 30, Welding                        | 2               | (1,3) |
| M. S. 32, Military Science               | $\frac{2}{8}$   | (0,2) |
| Voc. Ed. 32, Org. of Courses<br>of Study | 3               | (3,0) |
| Voc. Ed. 32.6, Ind. Arts                 | 2 $\frac{3}{8}$ | (2,2) |
| Voc. Ed. 38, Teaching of<br>Drawing      | 3               | (2,2) |
| Voc. Ed. 62, Ind. Lab.                   | 2               | (0,6) |
| Electives                                | 3 $\frac{3}{8}$ |       |

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## SENIOR YEAR

|                                         |                        |                                                |        |
|-----------------------------------------|------------------------|------------------------------------------------|--------|
| Arch. 41.5, Art Appreciation.....2      | (2,0)                  | Arch 42.5, Ind. Arts Design..... $\frac{2}{3}$ | (0,2)  |
| E. E. 35, Elec. Mach.....2              | (2,0)                  | E. E. 38, Voc. Electricity..... $1\frac{2}{3}$ | (1,2)  |
| E. E. 35a, Elec. Lab..... $\frac{2}{3}$ | (0,2)                  | Arch. 36, Bldg. Constr.....2                   | (2,0)  |
| *Sociol. 31, Sociology.....2            | (2,0)                  | M S 42, Military Science..... $\frac{2}{3}$    | (0,2)  |
| Arch 35, Bldg. Constr.....3             | (3,0)                  | *Voc. Ed. 43, Pract. Teach. 5                  | (0,10) |
| M. S. 41, Military Science.....1        | (0,3)                  | Voc. Ed. 46, Tech. of Teach. 3                 | (3,0)  |
| Voc. Ed. 55, Coordination               |                        | Electives.....4                                |        |
| Meth. in Voc. Ed.....2                  | (1,3)                  |                                                |        |
| Electives..... $3\frac{2}{3}$           |                        |                                                | 17     |
|                                         | <hr/> 16 $\frac{1}{3}$ |                                                |        |

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\*Offered both semesters.

## TEXTILE INDUSTRIAL EDUCATION

This course has for its purpose the preparation of young men for positions of usefulness and responsibility in vocational departments of schools located in textile communities. The course includes instruction in the fundamental principles of education, engineering and the textile industry.

The prime purpose of the course is to prepare the students for positions as teachers of trade and industrial subjects and as principals of schools in mill communities as well as local supervisors of industrial education. Since the textile industry is the chief one in the state, this industry is given special prominence. The course is essentially a combination of instruction in the textile industry and the training of industrial teachers.

One hundred forty semester hours of credit are required for graduation. Fourteen semester hours of free electives are allowed.

## TEXTILE INDUSTRIAL EDUCATION

## FRESHMAN YEAR

*First Semester*

|                            |                  |       |
|----------------------------|------------------|-------|
| Gen. Chem. 11, General     | 3 $\frac{2}{3}$  | (3,2) |
| Drawing 13, Engineering    | 1 $\frac{1}{3}$  | (0,4) |
| Eng. 15, Comp. & Lit.      | 3                | (3,0) |
| Hist. 14, Am. Ec. Hist.    | 2                | (2,0) |
| Math. 15, College Algebra  | 3                | (3,0) |
| M. E. 17, or 12, Shop      | 2                | (0,6) |
| M. S. 11, Military Science | 1                | (0,3) |
| Voc. Ed. 11, Orientation   | 1                | (1,0) |
| Y. M. 11, Gen. Textiles    | 1 $\frac{2}{3}$  | (1,2) |
|                            | <hr/>            |       |
|                            | 18 $\frac{2}{3}$ |       |

*Second Semester*

|                            |                  |       |
|----------------------------|------------------|-------|
| Gen. Chem. 12, General     | 3 $\frac{2}{3}$  | (3,2) |
| Drawing 14, Engineering    | 1 $\frac{1}{3}$  | (0,4) |
| Eng. 16, Comp. & Lit.      | 3                | (3,0) |
| Gov. 12, Am. Nat'l. Gov't. | 2                | (2,0) |
| Math. 11, Trigonometry     | 3                | (3,0) |
| M. E. 17, or 12 Shop       | 2                | (0,6) |
| M. S. 12, Military Science | 1                | (0,3) |
| W. D. 12, Gen. Textiles    | 1 $\frac{2}{3}$  | (1,2) |
|                            | <hr/>            |       |
|                            | 17 $\frac{2}{3}$ |       |

Summer industrial employment minimum of four weeks.

## SOPHOMORE YEAR

|                             |                  |       |
|-----------------------------|------------------|-------|
| Drawing 25, Mechanical      | 2 $\frac{3}{4}$  | (0,2) |
| Eng. 21, Lit. & Adv. Comp.  | 2                | (2,0) |
| M. E. 23, Machine Shop      | 1                | (0,3) |
| *Meth. 25, Industrial Math. | 3                | (3,0) |
| M. S. 21, Military Science  | 1                | (0,3) |
| Physics 11, General         | 3 $\frac{3}{4}$  | (3,2) |
| W. D. 21, Elem. Design      | 2                | (2,0) |
| W. D. 23, Weaving           | 2 $\frac{3}{4}$  | (0,2) |
| Y. M. 21, Pickers           | 2 $\frac{2}{3}$  | (2,2) |
| **Y. M. 23, Mill Problems   | 2                | (2,0) |
|                             | <hr/>            |       |
|                             | 18 $\frac{3}{4}$ |       |

|                                  |                  |       |
|----------------------------------|------------------|-------|
| Drawing 26, El. Des. & Kin.      | 2 $\frac{3}{4}$  | (0,2) |
| Eng. 22, Lit. & Adv. Comp.       | 2                | (2,0) |
| M. S. 22, Military Science       | 1                | (0,3) |
| Physics 12, General              | 3 $\frac{3}{4}$  | (3,2) |
| W. D. 22, Adv. Design            | 2                | (2,0) |
| W. D. 24, Weaving                | 2 $\frac{3}{4}$  | (0,2) |
| **W. D. 26, Mill Problems        | 2                | (2,0) |
| Y. M. 22, Cards & Draw F.        | 2 $\frac{2}{3}$  | (2,2) |
| Voc. Ed. 22, Intro. to Voc. Ed.  | 1                | (1,0) |
| Voc. Ed. 28, Observ. of Teaching | 1                | (0,3) |
|                                  | <hr/>            |       |
|                                  | 16 $\frac{3}{4}$ |       |

Summer industrial employment minimum of four weeks.

## JUNIOR YEAR

|                                |                  |       |
|--------------------------------|------------------|-------|
| Social 31, Sociology           | 2                | (2,0) |
| M. S. 31, Military Science     | 1                | (0,3) |
| Voc. Ed. 39, Prin. of Sec. Ed. | 3                | (3,0) |
| W. D. 31, Dobby Design         | 2                | (2,0) |
| W. D. 33, Fab. Analysis        | 1                | (0,2) |
| W. D. 35, Fancy Loom Fixing    | 2 $\frac{3}{4}$  | (0,2) |
| Y. M. 31, Rov. Frames          | 2 $\frac{2}{3}$  | (2,2) |
| Y. M. 34, Spinning             | 3                | (2,3) |
| Electives                      | 2                |       |
|                                | <hr/>            |       |
|                                | 17 $\frac{1}{4}$ |       |

|                                       |                  |       |
|---------------------------------------|------------------|-------|
| Eng. 32, Business Law                 | 2                | (2,0) |
| Voc. Ed. 32, Org. of Courses of Study | 3                | (3,0) |
| M. E. 34, Mech. Engr.                 | 3                | (3,0) |
| M. E. 34a, Mech. Engr. Lab.           | 2 $\frac{3}{4}$  | (0,2) |
| M. S. 32, Military Science            | 2 $\frac{3}{4}$  | (0,2) |
| W. D. 34, Fab. Analysis               | 1                | (0,2) |
| W. D. 36, Fancy Loom Fixing           | 2 $\frac{3}{4}$  | (0,2) |
| **Y. M. 28, Cotton Grading            | 2 $\frac{2}{3}$  | (0,2) |
| Y. M. 42, Combers                     | 1 $\frac{2}{3}$  | (1,2) |
| Electives                             | 4                |       |
|                                       | <hr/>            |       |
|                                       | 17 $\frac{1}{4}$ |       |

## SENIOR YEAR

|                             |                  |       |
|-----------------------------|------------------|-------|
| E. E. 35, Elec. Mach.       | 2                | (2,0) |
| E. E. 35a, Elec. Lab.       | 2 $\frac{3}{4}$  | (0,2) |
| Econ. 23, Economics         | 2                | (2,0) |
| Eng. 31, Public Speaking    | 2                | (2,0) |
| M. S. 41, Military Science  | 1                | (0,3) |
| W. D. 43, Cost Finding      | 3                | (3,0) |
| Y. M. 43, Doubling & Draft. | 1 $\frac{2}{3}$  | (1,2) |
| Electives                   | 5                |       |
|                             | <hr/>            |       |
|                             | 17 $\frac{1}{4}$ |       |

|                              |                  |        |
|------------------------------|------------------|--------|
| M. S. 42, Military Science   | 2 $\frac{3}{4}$  | (0,2)  |
| **Voc. Ed. 43, Prac. Teach.  | 5                | (0,10) |
| Voc. Ed. 46, Tech. of Teach. | 3                | (3,0)  |
| W. D. 44, Warp Prep.         | 2                | (2,0)  |
| W. D. 48, Knitting           | 2 $\frac{3}{4}$  | (0,2)  |
| Y. M. 44, Mill Econ.         | 2                | (2,0)  |
| Electives                    | 3                |        |
|                              | <hr/>            |        |
|                              | 16 $\frac{3}{4}$ |        |

## Suggested Electives:

|                         |                 |       |
|-------------------------|-----------------|-------|
| Voc. Ed. 31.6 Ind. Arts | 2 $\frac{2}{3}$ | (2,2) |
| Voc. Ed. 61, Ind. Lab.  | 2               | (0,6) |

## Suggested Electives:

|                         |                 |       |
|-------------------------|-----------------|-------|
| Voc. Ed. 32.6 Ind. Arts | 2 $\frac{2}{3}$ | (2,2) |
| Voc. Ed. 62, Ind. Lab.  | 2               | (0,6) |
| Econ. 24, Economics     | 2               | (2,0) |

\*For education students only.

\*\*Offered both semesters.

## DESCRIPTION OF COURSES\*

### AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

MR. AULL

MR. WILLIAMS    MR. MILLS    MR. PETERSON    MR. FERRIER    MR. BING

AG. EC. 22—ELEMENTARY AGRICULTURAL ECONOMICS—Semester 1 or 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the student with the fundamental principles of Economics in their relation to Agriculture. *Principal Topics:* The students are made acquainted with the terms in general use in agricultural economics and their meaning; the factors of production, the systems of land tenure and the basic social and economic problems confronting agriculture.

MR. BING

AG. EC. 32—FARM ORGANIZATION AND MANAGEMENT—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study the principles and problems involved in organizing and operating the successful farm business. *Principal Topics:* Farm organization and management; economic specialization in relation to agriculture; types of farming and the economic, physical and biological factors determining them; selection and combination of farm enterprises for highest profits; physical and financial organizations of farms, and farm operation in areas representative of the important types.

MR. PETERSON

AG. EC. 36—STATISTICAL METHODS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* A course in the meaning and application of statistical methods which will train students to make ordinary statistical studies. *Principal Topics:* Sampling, tabular and graphic presentation, averages, ratios and coefficients, dispersion, the theory of probability and error, index numbers, trends, and correlation.

MR. WILLIAMS

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\*Below, and on the pages following, are given in alphabetical order the descriptions of courses, including the subject, catalog number, descriptive title, the purpose, and the principal topics of each course. In general, Freshman courses are numbered from 11 through 19; Sophomore, 20 through 29; Junior, 30 through 39; and Senior, 40 through 60.

AG. EC. 34—PUBLIC FINANCE—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To familiarize the student with the problems of taxation and their economic and social implications with particular reference to agriculture. *Principal Topics:* The essentials of a just and equitable tax; a critical examination of some of the more common revenue-raising measures; budgets, and public expenditures, etc. The student will be given opportunity to study in detail the relative burden of state and local taxes upon different groups of individuals. (*Public Finance*—Lutz.)

MR. AULL

AG. EC. 35—COOPERATION IN AGRICULTURE—Semester 1 (3 and 0) 3 cr.

*Purpose:* To acquaint the student with the techniques and ethics of the cooperative business method and its applications to producing, purchasing, marketing, and financing in agriculture.

MR. MILLS

AG. EC. 40—ECONOMIC GEOGRAPHY—Semester 2 (3 and 0) 3 cr.

*Purpose:* A course for those desiring to understand the relation between geography and economic conditions, including the laws of trade. *Principal Topics:* Industrial geography, which includes the geographic, geologic, and climatic laws governing the establishment of any form of industry, all agricultural products, fish, manufacturing, and mineral resources being considered in its terms; commercial geography, which is concerned with the laws of trade and the trade routes of the world; the general influence of geologic factors on international relationship and policy is stressed. (*Industrial and Commercial Geography*—Smith.)

MR. BING

AG. EC. 41—PRINCIPLES OF MARKETING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study problems encountered by farmers in marketing their products. Different channels of trade and types of marketing agencies are studied. *Principal Topics:* A course dealing with the principles of marketing, cooperative marketing, marketing programs, problems, services, etc.; marketing institutions and functions, market grades, and



standardization; storage, warehousing, transportation, future trading, inspection and grading of perishable and staple products with particular reference to agriculture. (*Marketing*—C. F. Phillips.)

MR. FERRIER

AG. EC. 42—RURAL SOCIOLOGY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To study human relations as modified by life in the country. *Principal Topics:* The farm family; its food requirements; its housing, health; schooling; recreational opportunities, and the relation of the farm family to land, whether as owner or tenant.

MR. WILLIAMS

AG. EC. 43—FARM FINANCE AND ACCOUNTING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22, 32.

*Purpose:* (a) To analyze financial requirements of individual farmers and of farmers' marketing and purchasing organizations. (b) To understand the fundamental principles of accounting adapted to the farm business, and to make application of accounting data to farm management. *Principal Topics:* Critical study of different types and forms of accounts; actual practice in record-keeping, beginning with simple operations such as the inventory, the cash book, and ledger; analysis of credit requirements of farmers; investor and depositors as sources of credit; a study of financial institutions serving agriculture, such as farm mortgage companies, federal and joint stock land banks, immediate credit banks, live-stock loan companies, production credit associations, national and state banks, and the federal reserve banks; principles upon which credit is extended; and the cost of credit.

MR. FERRIER

AG. EC 44—LAND ECONOMICS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Senior Standing.

*Purpose:* To study land as a resource, as a factor in production, and its relation to society. *Principal Topics:* A critical treatment of such subjects as land settlement and colonization, land booms and depressions, land valuation and assessment, land price movements and rents. Economic land holding and economic land utilization are studied from individual,

state, and national viewpoints. Particular attention is given to state and national land planning, rural zoning, and conservation. (*Land Economics*—Ely and Wehrwein.)

MR. AULL

AG. EC. 46—FARMERS' MOVEMENTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Ag. Ec. 22.

*Purpose:* To give the student a view of the efforts of farmers to organize for the improvement of agriculture and other rural concerns. *Principal Topics:* Beginning with the first local agricultural society, the development of this movement is followed through the period of the Civil War. After 1865, the Grange, Farmers' Alliance, etc., are studied in their chronological order.

MR. MILLS

AG. EC. 51, 52—SEMINAR—Semesters 1 and 2 (1 and 0) 1 cr. each semester.

*Prerequisite:* Senior standing and major in Agricultural Economics.

*Purpose:* To acquaint the student with the relation of economics and sociology to specific problems. *Principal Topics:* Each student will select some problem for intensive study, and the various problems selected will be discussed in their relation to each other and to the current situation.

MR. AULL AND STAFF

### AGRICULTURAL ENGINEERING

MR. NUTT

MR. McADAMS

MR. DUNKELBERG

AG. ENGR. 21—AG. MECHANICS—Semester 1 (2 and 3) 3 cr.

*Purpose:* To give the theoretical and practical application of the mechanics pertaining to agriculture. *Principal Topics:* Soldering, cement work, rope work, belts, pulleys and laces, leather work, pipe fitting, painting, wood finishing, and glazing. (*Mechanical Training*—Boss, Dent, and White.)

MR. McADAMS

AG. ENGR. 22—FARM MACHINERY—Semester 2 (2 and 2) 2 2/3 cr

*Purpose:* To give theoretical and practical training in the operation of modern farm equipment. *Principal Topics:* Construction, operation, requirements and utilization of tillage, seeding, cultivating, harvesting and belt-operated farm machinery. (*Farm Machinery and Equipment—Smith.*)

MR. NUTT

MR. McADAMS

AG. ENGR. 33—FARM BUILDINGS—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Drawing 25 and 26.

*Purpose:* To assist students in the design and construction of farm buildings. *Principal Topics:* Properties of farm building materials, principles of concrete construction, essentials and design of typical structures, wood preservatives, specification, cost estimating, and farmstead sanitation. (*Farm Buildings—Scoates.*)

MR. DUNKELBERG

AG. ENGR. 34—ADVANCED FARM BUILDINGS—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Ag. Engr. 33.

*Purpose:* A continuation of Agricultural Engineering 45. *Principal Topics:* A more detailed study of construction, design, and cost estimation of farm buildings. (*Farm Buildings—Scoates.*)

MR. DUNKELBERG

AG. ENGR. 35—MOTORS AND POWER MACHINERY—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Physics 21 and 22.

*Purpose:* To give to the student theories of operation, construction, and utilization of internal combustion engines. *Principal Topics:* History of the internal combustion engine, nomenclature and definitions, principles of operation, power and its measurement, and gas engine troubles. (*Farm Gas Engines and Tractors—Jones.*)

MR. NUTT

AG. ENGR. 38—SOIL CONSERVATION—Semester 2 (1 and 3) 2 cr.

*Purpose:* To provide a less technical course in terracing and drainage for students majoring in Agricultural Education and those majoring

in any field of agriculture other than Agricultural Engineering. *Principal Topics*: Elementary surveying, prevention of soil erosion, with equal emphasis on terracing, design, and study of drainage systems. (*Soil Conservation*—Ayers.)

MR. NUTT

MR. McADAMS

AG. ENGR. 41—RURAL ELECTRIFICATION—Semester 1 (2 and 3) 3 cr.

*Prerequisite*: EE. 35 and E. E. 35a.

*Purpose*: To acquaint students in the problems of distribution and utilization of electricity into rural areas. Emphasis is placed on rural line construction, house wiring, and proper adaptation of electrical equipment to the farm.

MR. McADAMS

AG. ENGR. 44—SURVEYAGE AND DRAINAGE—Semester 2 (2 and 3) 3 cr.

*Purpose*: To fulfill the need of instruction dealing with drainage, terracing, reclamation, and surveying problems pertaining to farms. *Principal Topics*: Elementary surveying, design and study of drainage systems, prevention of soil erosion, with special emphasis on terracing, land reclamation, and the use of explosives. (*Land Drainage and Reclamation*—Ayers and Scoates.)

MR. NUTT

AG. ENGR. 48—ADVANCED FARM MACHINERY LABORATORY—Semester 2 (1 and 3) 2 cr.

*Prerequisite*: Ag. Engr. 22.

*Purpose*: To provide advanced theoretical and practical training for students in the School of Agriculture whose major is Agricultural Engineering. *Principal Topics*: Testing and adjusting of tractors, seeding, cultivating, harvesting and belt-operated farm equipment.

MR. NUTT

AG. ENGR. 51 & 52—INTRODUCTION TO RESEARCH AND THESIS—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Purpose*: To teach the student how to attack and solve a research problem. *Principal Topics*: A suitable problem is assigned each student. The results of the study are presented in thesis form.

AGRICULTURAL ENGINEERING STAFF



## AGRONOMY

MR. COOPER

MR. COLLINGS

MR. PATRICK

MR. LIPSCOMB

MR. JONES

## AGR. 11—FIELD CROPS—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give the student a fundamental course in general field crops. *Principal Topics:* Origin, history, botanical characteristics, physiology, ecology, varieties, breeding, soil adaptation, fertilizer requirements of the most important crops of the United States and the cultural methods employed in their production. (*Production of Field Crops*—Huchinson, Wolfe and Kipps.)

MR. COLLINGS

MR. LIPSCOMB

## AGR. 20—SOILS—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student a fundamental course in soils. *Principal Topics:* Basic principles of soil physics, soil fertility, soil biology, and soil management. The study deals with the soil as a reservoir for water; a medium for root development, a source of nutrients, and a home of organisms. (*The Nature and Properties of Soils*—Lyon and Buckman.)

MR. COLLINGS

MR. JONES

MR. LIPSCOMB

## AGR. 31—FERTILIZERS AND MANURES—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Agr. 20.

*Purpose:* To give the student a thorough knowledge of the sources, characteristics, and uses of fertilizers and manures. *Principal Topics:* Sources, mining and manufacturing, composition, physical characteristics, and use of fertilizers and manures. (*Commercial Fertilizers—Their Sources and Use*—Collings.)

MR. COLLINGS

## AGR. 32—GENETICS—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To instruct students in the basic principles of genetics. *Principal Topics:* Heredity and variation, laws of heredity, application of genetic principles of plant and animal improvement. (*Principles of Genetics*—Sinnott and Dunn.)

MR. LIPSCOMB

MR. JONES

AGR. 33—FORAGE CROPS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Agr. 11.

*Purpose:* To give the student a thorough knowledge of the botanical characteristics, cultural practices employed, and utilization of the leading forage plants of the United States. *Principal Topics:* The origin and adaptation of forage crops, methods of production; treatment of pastures, meadows, etc., and an intensive study of the leading forage plants with special emphasis given to those adapted to South Carolina conditions. (*Forage Plants and Their Culture*—Piper; *Growing Pastures in the South*—Combs.)

MR. JONES

AGR. 42—SOIL FERTILITY AND MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Agr. 20 and Agr. 31.

*Purpose:* A detailed study of soil composition and practices of soil management. *Principal Topics:* Composition of the soil, influence of crop rotations and fertilizers on soil productivity, influence of various methods of tillage on crop yields, and a general study of those factors essential for the practical utilization of South Carolina soils. (*Soil Management*—Bear; *Soils and Men*—U. S. D. A. Yearbook, 1938.)

MR. COLLINGS

AGR. 43—FARM PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To familiarize the student with the practical problems confronted under various conditions that exist in different sections of South Carolina. *Principal Topics:* The problems to be taken from experiences of farmers, county agents, and specialists in adjusting farm practices to varying conditions of organization, soil types, and climate.

MR. PATRICK

AGR. 44—ADVANCED SOIL LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Agr. 20.

*Purpose:* To develop laboratory technique and to make students proficient in making physical and chemical determinations of soils. *Principal Topics:* Mechanical analysis, determinations of volume weight, soil water, organic matter, nitrogen, phosphoric acid, and potash. (*Soil Characteristics*—Emerson.)

MR. COLLINGS

AGR. 45—CROP NUTRITION—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Agr. 11.

*Purpose:* To give the student a comprehensive knowledge of the geographical distribution, soil and fertilizer requirements of important farm crops. *Principal Topics:* Economic importance and climatic requirements of various crops; important soil factors influencing crop production, and the nutrient requirements of crops. (*The Small Grains*—Carlton; and *The Corn Crop*—Montgomery.)

MR. COOPER

AGR. 47—ADVANCED CROP LABORATORY—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give advanced students detailed information on important agronomic problems. *Principal Topics:* Experimental methods used in agronomy, morphological characters, classification, and yielding capacity of important varieties of various farm crops. (*Bulletins and Periodicals.*)

MR. LIPSCOMB

AGR. 49—PLANT BREEDING—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Agr. 32.

*Purpose:* To present the application of the basic principles of genetics in the improvement of crop plants. *Principal Topics:* Biometrical methods, field plant technique, modes of reproduction of plants and methods of improving various crop plants. (*Breeding Crop Plants*—Hayes and Garber. )

MR. LIPSCOMB

MR. JONES

AGR. 51—SEMINAR—Semester 1 (1 and 0) 1 cr.

*Purpose:* To consider agronomic topics of special interest in crop production. *Principal Topics:* Material occurring in current numbers of professional journals and bulletins.

MR. COOPER

AGR. 52—SEMINAR—Semester 2 (1 and 0) 1 cr.

*Purpose:* To give the student the latest published and unpublished information concerning recent developments in the field of soil science. *Principal Topics:* Topics taken from latest published bulletins, reports, and professional magazines

MR. COLLINGS

AGR. 53—COTTON—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Agr. 11.

*Purpose:* To give the student a thorough knowledge of all phases of cotton production. *Principal Topics:* History, morphology, physiology, varieties, methods of cultivation, fertilization, insect and disease control, breeding, harvesting and grading of American Upland cotton. (*Cotton Fiber Production in America*—Collings.)

MR. COLLINGS

AGR. 61, 62—INTRODUCTION TO RESEARCH AND THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To teach the student how to attack and solve a research problem. *Principal Topics:* A suitable problem is assigned each student. The results of the study are presented in thesis form.

MR. COLLINGS

### ANIMAL HUSBANDRY

MR. STARKEY

MR. RITCHIE

MR. HAUSER

A. H. 12—TYPES, BREEDS AND MARKET CLASSES OF LIVESTOCK—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the agricultural students a knowledge of the characteristics and uses of farm animals. *Principal Topics:* Types, breeds, and market classes of beef cattle, horses, mules, sheep, and swine. In laboratory, the judging of farm animals is given considerable emphasis. (*Types and Market Classes of Livestock*—Vaughan.)

MR. RITCHIE

MR. HAUSER

A. H. 31—FEEDS AND FEEDING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* A. H. 12 and Chemistry 21.

*Purpose:* To give the student an understanding of the principles of feeding farm animals. *Principal Topics:* A study of nutrients, digestion, metabolism of feed stuffs, nutritive ratios, feeding standards, and the balancing of rations. (*Feeds and Feeding*—Henry and Morrison.)

MR. HAUSER



A. H. 32—JUDGING—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* A. H. 12.

*Purpose:* To train students in the art of judging the different classes of livestock. *Principal Topics:* A study of breed types and the selection of foundation animals for purebred herds.

MR. HAUSER

A. H. 34—PORK PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the students a thorough knowledge of the fundamentals of pork production. *Principal Topics:* Feeding and management of hogs at different weight and ages. Forage crops, protein supplements, preparation of feeds, methods of feeding, relative value of feeds, summer and winter management, buying, and selling. (*Pork Production*—Smith.)

MR. STARKEY

MR. HAUSER

A. H. 35—FARM MEATS—Semester 1 (0 and 6) 2 cr.

*Prerequisite:* A. H. 12.

*Purpose:* The proper selection and killing of meat animals and the cutting and curing of farm meats. *Principal Topics:* Production, selection, slaughtering, cutting, curing, judging, and consumption of farm meats. (*Meat and Meat Products*—Tomhave.)

MR. RITCHIE

A. H. 40—ANIMAL BREEDING—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Dairy 32 or Agronomy 32.

*Purpose:* To give the student an understanding of the fundamental principles relative to the breeding and improvement of livestock. *Principal Topics:* Variation, heredity, selection, linebreeding, in-breeding, cross-breeding, breed analysis, and other correlated subjects. (*Breeding and Improvement of Farm Animals*—Rice.)

MR. STARKEY

A. H. 41—ADVANCED FEEDS AND FEEDING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the student a knowledge of the relative values of the different feeds used in livestock production, to study the nutrient requirements of the different classes of livestock, to become familiar with the digestible nutrients in our most common feeds, and to balance rations for all classes of livestock. (*Feeds and Feeding*—Henry and Morrison.)

MR. STARKEY

A. H. 42—HORSE AND SHEEP PRODUCTION—Semester 2 (2 and 2)  
2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To give the students training relative to the feeding and management of horses and sheep. *Principal Topics:* Feeding, breeding, management, judging, shearing, blocking, and sanitation. (*Productive Sheep Husbandry*—Coffey.)

MR. HAUSER

A. H. 43—BEEF PRODUCTION—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To familiarize the student with the principles of breeding, feeding, and management of beef cattle in the United States and foreign countries. *Principal Topics:* Early history of beef production, beef production in foreign countries, relation of beef production to general farming, most profitable feeds for beef production, methods of breeding to improve beef cattle, management of the purebred herd. (*Beef Production*—Snapp.)

MR. STARKEY

A. H. 44—ADVANCED MEATS—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* A. H. 12 or A. H. 35.

*Purpose:* This course deals with retail cutting of meat, the making of sausage, and meat specialties, and meat hygiene.

MR. RITCHIE

A. H. 45—ADVANCED JUDGING—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* A. H. 12.

*Purpose:* To give advanced students an opportunity to become more proficient in judging livestock. *Principal Topics:* Judging cattle, horses, mules, sheep and swine. Classes of livestock are studied and placed, and reasons given for the placings.

MR. HAUSER

A. H. 52—SEMINAR—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* A. H. 31.

*Purpose:* To teach the student how to make use of the library and to keep informed concerning the latest findings of the experiment stations. *Principal Topics:* Timely topics are selected which have a bearing on the work which is being conducted at the various experiment stations. Each student summarizes the data on his particular problem and presents it to the group taking the course.

MR. STARKEY

## ARCHITECTURE

MR. LEE

MR. ANDERSON

MR. FITZPATRICK

MR. HODGE

MR. GEER

ARCH. 11, 12—ELEMENTS OF ARCHITECTURE—Semester 1 and 2 (0 and 5)  
1 2/3 cr.

*Purpose:* To give the beginner in Architecture an accurate picture of the profession he has elected, and basic training in drafting and design. *Principal Topics:* Exercises in proper drafting methods. An understanding of the use of the orders in architecture. The design, planning and construction drawings of a small building. Training in presentation of work. Lectures on the duties of an architect.

MR. FITZPATRICK

MR. GEER

ARCH. 13, 14—FREEHAND DRAWING—Semesters 1 and 2 (0 and 4)  
1 1/3 cr.

*Purpose:* To give the student a thorough working knowledge of the principles of both angular and parallel perspective—the perspective of circles and shading. *Principal Topics:* Study of mass, form, proportion, and value with the mediums of pencil and charcoal. A sketching technique is stressed.

MR. HODGE

ARCH. 15—DESCRIPTIVE GEOMETRY—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To develop the powers of visualization and imagination. *Principal Topics:* Points, lines, planes, intersections, and sections. Solutions on drafting board. (*Practical Descriptive Geometry*—D. A. Low.)

MR. FITZPATRICK

MR. GEER

ARCH. 16—SHADES AND SHADOWS AND PERSPECTIVE—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Architecture 15.

*Purpose:* To create in the student's mind correct form and proportion by application of conventional shades, shadows, and principles of perspective. *Principal Topics:* Drafting board practice in casting of Shades and Shadows on architectural forms and principles of architectural perspective. (*Shades and Shadows for Architects*—Buck, Ronan and Oman.)

MR. FITZPATRICK

MR. GEER

ARCH. 21—ARCHITECTURAL DESIGN—Semester 1 (0 and 14) 4 2/3 cr.

*Prerequisite:* Arch. 12, 14, 15, 16.

*Purpose:* To introduce the student by means of analytical problems to the basic principles of design inherent in the smaller elements of architecture. *Principal Topics:* Proportions, relative values of three dimensional mass; relation of lesser elements and decorative details to the larger forms, in respect to mass and pattern; design of windows, doors, porticoes, arches; the Orders, together with analysis of detail of mouldings, carried out in rendered problems of from two to five weeks duration. *Rendering:* building out of masses, focus of attention.

MR. ANDERSON                      MR. GEER

ARCH. 22—ARCHITECTURAL DESIGN—Semester 2 (0 and 14) 4 2/3 cr.

*Prerequisite:* Arch. 21.

*Purpose:* Continuation of Arch. 21, with a gradual working toward small problems in planning in preparation for Arch. 31. *Principal Topics:* Continuation of Arch. 21; planning as a problem in three dimensional space; elementary exercises in spatial requirements of windows, doors, stairs, roofs, bath rooms, closets, fireplaces, etc., carried out in rendered problems of from two to five weeks duration.

MR. ANDERSON

ARCH. 23, 24—ANTIQUE AND COLOR—Semester 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch. 14.

*Purpose:* To give a thorough drill in the drawing of simple casts of architectural fragments, parts of the figure, and still life groups. *Principal Topics:* Elements of decorative composition, still life groups in monochrome and color. Outdoor sketching—sketching in water-color, pastel, and charcoal.

MR. HODGE

ARCH. 23.5, 24.5—DECORATIVE DESIGN AND COLOR—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch 14.

*Purpose:* To give the student majoring in Weaving and Designing the fundamentals of form, shade, and color underlying the design of decorative textiles. *Principal Topics:* Pencil sketching, charcoal drawing



from models, casts and nature, adaptation of natural and conventional forms to decorative design as applied to textile fabrics, study of color in theory and practice, and water-color renderings.

MR. HODGE

ARCH. 25—HISTORY OF ARCHITECTURE—Semester 1 (4 and 0) 4 cr.

*Purpose:* To acquaint the student with the development of architecture, from prehistoric to mediaeval time, as a problem both of construction and aesthetics. *Principal Topics:* Influence of various geographic, geological, social, and psychological factors; structural problems and their solution, post and lintel, arch, vault, pendentive, dome; planning problems and their solution; temples, churches, public buildings; decorative problems and their solution, as revealed in the buildings of the Egyptian, Greek, Roman, Early Christian, Byzantine, and Romanesque periods.

MR. ANDERSON

ARCH. 25.5—ARCHITECTURE OF ANTIQUE AND EARLY CHRISTIAN CIVILIZATIONS—Semester 1 (2 and 0) 2 cr.

*Purpose:* An elective course to present, as cultural background, a brief, non-technical synopsis of architecture as it developed in the earlier civilizations of Western Europe. *Principal Topics:* While in general this course covers the material of Arch. 25, the lectures will be less concentrated and will be given from the lay rather than the architectural point of view. Emphasis will be placed not on specific buildings, but on types of buildings evolved by the different civilizations. Architecture in the Egyptian, Greek, Roman, and Early Christian civilizations.

MR. ANDERSON

ARCH. 26—HISTORY OF ARCHITECTURE—Semester 2 (4 and 0) 4 cr.

*Prerequisite:* Arch. 25.

*Purpose:* To acquaint the student with the development of architecture, from mediaeval to modern time, as a problem both of construction and aesthetics. *Principal Topics:* Influence of various geographic, geological, social, and psychological factors; the spread of the Romanesque system of building through Western Europe, and its crystallization in Gothic architecture; the revival of Classic form in Italy during the Renaissance; the spread of the Renaissance into France and England; nineteenth century eclecticism, and the beginnings of modern architecture.

MR. ANDERSON

ARCH. 26.5—ARCHITECTURE OF MEDIAEVAL AND RENAISSANCE CIVILIZATIONS—Semester 2 (2 and 0) 2 cr.

*Purpose:* An elective course to present, as cultural background, a brief, non-technical synopsis of architecture as it developed in the later civilizations of Western Europe. *Principal Topics:* Architecture of the mediaeval and renaissance civilizations of Italy, France, and England. No prerequisite is required, but inasmuch as the forms of both mediaeval and renaissance architecture are either wholly or in part rooted in earlier developments, the first half-dozen lectures will be devoted to these before proceeding with the material of the course.

MR. ANDERSON

ARCH. 28—SUMMER WORK—6 Weeks.

*Purpose:* To give the student an insight into the practical side of the profession, a better appreciation of the objectives in his college work and to enable him to secure better employment upon graduation. *Principal Topics:* Any duties connected with an architect's office or on construction work with a contractor, or making measured drawings of some building of good architectural character approved by the faculty of architecture. The student is expected to do this without remuneration if necessary.

ARCH. 31, 32—ARCHITECTURAL DESIGN—Semesters 1 and 2 (0 and 22) 7 1/3 cr.

*Prerequisite:* Arch. 22.

*Purpose:* To acquaint the student with problems involving planning, elevation, and mass composition in all styles of architecture. *Principal Topics:* The formal plan problem of public buildings; studies in entourage, elements of landscape architecture with relation to plan and elevation, interior architecture, indication, and presentation. The esquisse-esquisse.

MR. FITZPATRICK

MR. ANDERSON

MR. GEER

ARCH. 31a—THEORY OF ARCHITECTURE—Semester 1—(Given jointly as part of Arch. 31.)

*Prerequisite:* Registration in Architecture 31.

*Purpose:* An open period where all topics relating to architecture are brought up for discussion. Seminar. *Principal Topics:* Formal discussion of the theory of design; axial relationship, mosaic, circulation, requirements of type buildings; informal discussion of new theories of design and style; competitions and exhibitions.

MR. FITZPATRICK

ARCH. 33, 34—CAST DRAWING—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* Arch 24.

*Purpose:* An advanced course in the representation of antique sculpture to show the elements of anatomy and its relation to form. *Principal Topics:* Drawing from casts with a choice of mediums such as charcoal, conte, pastel, etc.; outdoor sketching in pencil and water-color.

MR. HODGE

ARCH. 33.5—DECORATIVE DESIGN AND COMPOSITION—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Arch. 24.5.

*Purpose:* To give the student majoring in Weaving and Designing advanced training in the composition of textile patterns. *Principal Topics:* Composition of border patterns; geometric bases for all-over repeating designs; designing for damasks, brocades, tapestries, rugs, etc.

MR. HODGE

ARCH. 35, 36—BUILDING CONSTRUCTION—Semester 1 (3 and 0) 3 cr.  
Semester 2 (2 and 0) 2 cr.

*Purpose:* To give the student a knowledge of the materials used in the construction of a frame building, their qualities and uses. *Principal Topics:* Growth of wood, house framing, roofing, door and window details, flooring, plastering, interior and exterior finish, painting, chimney construction, hardware, estimating, specification writing, problems in calculation. (*Materials and Methods of Architectural Construction*—Gay and Parker.)

MR. LEE

ARCH. 37, 38—WORKING DRAWINGS—Semesters 1 and 2 (0 and 2)  
2/3 cr.

*Prerequisite:* Architecture 32. *36 at same time*

*Purpose:* The student is required to make complete working drawings of a frame building just as the practicing architect does in his office. *Principal Topics:* Scale drawings of plan of each floor, foundation and roof; elevation of each side of building; large scale details of framing, doors, windows, trim, stairs, cornice, roof and chimney; calculations; tracing, blueprinting.

MR. LEE

ARCH. 39—HISTORIC ORNAMENT—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Arch. 22, 24, 26.

*Purpose:* To acquaint the student with the development, from pre-historic to modern time, of architectural ornament. *Principal Topics:* Carved and painted ornament; mosaic pavements; painted wall decoration; stained glass, a decoration of vaults and ceilings; interior decoration; as developed in Egyptian, Greek, Roman, Mediaeval, and Renaissance architecture. After a brief analysis of each phase, the student is required to submit a small rendered plate of the particular ornament under consideration.

MR. ANDERSON

ARCH. 40, 49—LIFE DRAWING—Semester 1 and 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Arch. 34.

*Purpose:* To acquaint the student with the proportion and anatomy of the nude and draped figure. Designed primarily for architectural students. *Principal Topics:* Quick sketches of the nude for action and movement. Longer studies of the nude and draped figure for tone values, composition, and light effects. Charcoal as a medium.

MR. HODGE

ARCH. 40.5—HISTORY OF PAINTING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Junior or Senior Standing.

*Purpose:* Stressing the appreciation of painting through the various national styles. *Principal Topics:* Pre-historic painting; Egyptian and Greek painting; the Renaissance in Italy, the Netherlands, and France; the German, Spanish, English, and American schools; the International style and abstract art; illustrated with slides and mounted reproductions. (*University Prints.*)

MR. FITZPATRICK

ARCH. 41, 42—ARCHITECTURAL DESIGN—Semesters 1 and 2 (0 and 20)  
6  $2\frac{2}{3}$  cr.

*Prerequisite:* Arch. 32.

*Purpose:* To present architectural problems of an advanced nature. *Principal Topics:* The complex plan, multi-storied elevation, elements of



civic planning, advanced archaeology problems, the esquisse-esquisse, advanced landscape architecture.

MR. ANDERSON

ARCH. 41.5—ART APPRECIATION—Semester 1 (2 and 0) 2 cr.

(For students in Industrial Education—Elective).

*Purpose:* To cultivate in the student an artistic taste and to direct and instruct it by bringing him in contact with the best examples. *Principal Topics:* Periods and styles of architecture, painting, sculpture, furniture, ornament, decorative and interior composition, given by lectures and lantern slides.

STAFF

ARCH. 42.5—INDUSTRIAL DESIGN—Semester 2 (0 and 2) 2/3 cr.

(For students in Industrial Education).

*Prerequisite:* Drawing 12 and 14, Architecture 41.5.

*Purpose:* To give the students the fundamentals in design of simple pieces of furniture as worked out on the drafting table. *Principal Topics:* Working detail drawings of chairs, tables, metal work, etc.

MR. LEE

ARCH. 43, 44—BUILDING CONSTRUCTION—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Arch. 36.

*Purpose:* To give the student a working knowledge of the nature, quality, and uses of materials in a masonry building. *Principal Topics:* Foundations, mortars, details of masonry construction, steel, concrete, fireproof construction, estimates, specifications, superintendence, calculations.

MR. LEE

ARCH. 45, 46—STRUCTURAL DESIGN—Semester 1 (0 and 6) 2 cr. Semester 2 (0 and 8) 2 2/3 cr.

*Prerequisite:* Architecture 38.

*Purpose:* To train the student to make working drawings of a masonry building with specifications, including mechanical plant, as usually

44 + 46 = 90 47 + 8 = 55 same as above

prepared in the practicing architect's office. *Principal Topics*: Scale drawings of all floor plans and elevations, cross sections; large scale details of all parts of the construction with necessary calculations; specification writing, estimating; completed documents are to be in approved shape so that they may be submitted to a contractor for a bid.

MR. LEE

ARCH. 47—MECHANICAL PLANT—Semester 1 (2 and 0) 2 cr.

*Prerequisite*: Architecture 38.

*Purpose*: To familiarize the student with the design and requirements of heating, lighting and sanitary systems in a building. *Principal Topics*: Hot air, hot water, and steam systems of heating; ventilation, electric lighting, plumbing for supply and drainage. Layout of these systems is required on drawings made in Architecture 38 or 45.

MR. LEE

ARCH. 48—PROFESSIONAL PRACTICE—Semester 2 (1 and 0) 1 cr.

(For seniors in Architecture only).

*Purpose*: To familiarize the student with methods of practice of architecture and inculcate in him the high ethical ideals of the profession. *Principal Topics*: Office management and organization, laws, codes, contracts, ethics, competitions; documents of the American Institute of Architects are studied.

MR. LEE

ARCH. 51, 52—ADVANCED ARCHITECTURAL DESIGN—Semesters 1 and 2 (credits to be arranged with instructor).

*Prerequisite*: Arch. 42.

*Purpose*: A continuation of Arch. 42 with more advanced work, as an elective to advanced students having the prerequisite. *Principal Topics*: The student writes his own program of the project. Scheduled criticism periods and personal presentation to the architectural faculty for judgment at the end of each semester.

MR. FITZPATRICK

ARCH. 53—MODELING—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Arch. 12, 14, 15, 16.

*Purpose:* To give the student studies in three dimensional representation in a plastic medium. *Principal Topics:* Bas-relief plaques, the human figure in relief and in the round, decorative compositions in bas-relief and in the round, advanced anatomy of the human figure, and animal forms.

MR. HODGE

### BACTERIOLOGY

MR. AULL

BACT. 31—GENERAL BACTERIOLOGY—Semester 1 (2 and 4) 3 1/3 cr.

*Prerequisite:* Botany 13 and 14, Chemistry 11 and 12. (*Suggested:* Chemistry 21, or Chemistry 25 and 26.)

*Purpose:* To give the student a clear working knowledge of the fundamentals of bacteriology. *Principal Topics:* Morphology, classification, distribution, cultivation, observation, and physiology of microorganisms; effects of organisms on their environment; microorganisms and health. (*Bacteriology*—Tanner; *Laboratory Manual for General Bacteriology* Pettier, Georgi, and Lindgren.)

MR. AULL

BACT. 40—DAIRY BACTERIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Bacteriology 31.

*Purpose:* To give the student a detailed knowledge of bacteriology in its relation to the dairy industry. *Principal Topics:* Bacterial counts on milk, milk fermentations, contamination of milk and cream, reducing the contamination of milk, growth of microorganisms in milk and cream, body cells in milk, spread of diseases through milk and its derivatives; preservation of milk and cream, milk enzymes, bacteriology of prepared milks, ice cream, butter cultures, fermented milks, butter, cheese, tests for the quality of milk and cream. (*Dairy Bacteriology*—Hammer; *Standard Methods of Milk Analysis and Mimeographed Notes.*)

MR. AULL

BACT. 42—SANITARY BACTERIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Chemistry 11 and 12.

*Suggested:* Botany 13 or 14 and Organic Chemistry.

*Purpose:* This course is designed primarily for Engineering students. After a consideration of the fundamentals of bacteriology, the course is designed to give a knowledge of the relation of bacteriology to water purification and sewage disposal. *Principal Topics:* Morphology, classification, physiology, and cultivation of microorganisms; the bacteria in natural waters, the location and protection of water supplies, the Colon-Typhoid group of bacteria, the bacteriological examination of water and sewage, the purification of water, operation of control laboratories, bacteriological control of swimming pools, the bacteriology of sewage and sewage effluents and methods of sewage disposal. (*Elements of Water Bacteriology*—Prescott & Winslow; *Water Purification Control*—Hopkins; *Lectures and Technical Papers*; *Standard Methods for the Examination of Water and Sewage of the A. P. H. A.* and *Mimeographed Notes.*)

MR. AULL

BACT. 44—SOIL MICROBIOLOGY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Bacteriology 31.

*Purpose:* To give the student accurate knowledge of the importance of microorganisms in the maintenance of soil fertility. *Principal Topics:* The soil and the plant, the microbe and its activities, the soil population, the role of microbes in the decomposition of organic substances, transformation of nitrogen, transformation of mineral substances in soil by the action of microorganisms, interrelationships between higher plants and soil microorganisms, modification of the soil population, importance of microbes in soil fertility. (*Principles of Soil Microbiology*—Waksman.)

MR. AULL

## BOTANY

MR. ARMSTRONG

MR. ROSENKRANS

MR. SHANOR

MR. TAYLOR

BOT. 11—GENERAL BOTANY—Semester 1 (2 and 4) 3 1/3 cr.

*Purpose:* To give a general survey of the principles manifest in the life of plants. *Principal Topics:* The first part of the semester is de-



voted to a study of the form, structure, and physiology of the higher plants, followed by a study of algae, bacteria, fungi, liverworts, mosses, and ferns, with the application of the biological laws. Descriptions, life histories and adaptation of the representative organisms are considered. This course is designed for General Science students.

MR. ROSENKRANS

MR. SHANOR

MR. TAYLOR

BOT. 13—AGRICULTURAL BOTANY—Semester 1 (2 and 2) 2  $\frac{2}{3}$  cr.

*Purpose:* To give the students knowledge of the different plant organs and their uses. *Principal Topics:* The structure and functions of the various parts of the higher seed plants and the broad principles of metabolism, growth, and reproduction are first taken up, followed by a study of the lower organisms.

MR. ROSENKRANS

MR. SHANOR

MR. TAYLOR

BOT. 14—AGRICULTURAL BOTANY—Semester 2 (2 and 4) 3  $\frac{1}{3}$  cr.

A continuation of course 13, dealing with the changes in form, structure, and methods of reproduction from the lower to the higher forms of plants. The latter part of the semester is devoted to practice work in plant identification. (*Field, Forest, and Garden Botany*—Gray.)

MR. ROSENKRANS

MR. SHANOR

MR. TAYLOR

BOT. 16—GENERAL BOTANY—Semester 2 (2 and 4) 3  $\frac{1}{3}$  cr.

*Purpose:* To make the students familiar with the application of biological laws; and descriptions, life histories, and adaptations of representative organisms. *Principal Topics:* The structure and functions of the various parts of the higher seed plants, and the broad principles of metabolism, growth and reproduction are first discussed, followed by a study of the lower organisms. The practical work will consist of laboratory studies illustrating the more important phases of the theoretical work. This course is designed for students in Agricultural Education.

MR. ROSENKRANS

MR. SHANOR

MR. TAYLOR

BOT. 30— PLANT PHYSIOLOGY—Semester 2 (2 and 4) 3  $\frac{1}{3}$  cr.

*Prerequisite:* Botany 11 or 13; one year of Chemistry, and one semester of Physics.

*Purpose:* To study all the relations and processes which have to do with the maintenance, growth, and reproduction of plants. *Principal*

*Topics:* Absorption of matter and energy, water relations of the plant, utilization of reserve products and liberation of energy, growth, movement, and reproduction.

MR. ARMSTRONG

BOT. 41—FIELD CROP DISEASES—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14; suggested, Botany 30.

*Purpose:* To give a knowledge of the common field crop diseases and methods for their control. *Principal Topics:* Historical background, fungicides, insects as disseminators of disease, types of organisms causing disease, symptoms, effect upon host plants, and control of the common field crop diseases. (*Elements of Plant Pathology*—Melhus and Kent.)

MR. ARMSTRONG

BOT. 43—ORCHARD AND TRUCK CROP DISEASES—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14; Suggested, Botany 30.

*Purpose:* To study the diseases of fruits and vegetables, and methods for their control. *Principal Topics:* Historical background, fungicides, insects as disseminators of disease, symptoms, effect upon host plants, and control of diseases of fruits and vegetables. (*Elements of Plant Pathology*—Melhus and Kent.)

MR. ARMSTRONG

BOT. 45—PLANT PATHOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Botany 11 or 14 or 16.

*Purpose:* To acquaint the student with the major plant diseases of the South. *Principal Topics:* Plant diseases, symptoms of the diseases, the nature of the causal agencies or factors, and methods of control. (*Elements of Plant Pathology*—Melhus and Kent.)

MR. SHANOR

BOT. 102—MORPHOLOGY AND CLASSIFICATION OF THE FUNGI—Semester 2 (2 and 4) 3 1/3 Credits. (Hours to be arranged)

*Prerequisite:* Botany 13 and 14.

A course to acquaint the student with the morphology and taxonomy of the fungi through lectures, reports, laboratory work, and field trips. Special attention is devoted to practice in the methods of pure culture as they apply to the different saprophytic and parasitic forms.

MR. SHANOR

## CHEMISTRY

|               |                |             |
|---------------|----------------|-------------|
|               | MR. CALHOUN    |             |
| MR. POLLARD   | MR. MITCHELL   | MR. HUNTER  |
| MR. CARODEMOS | MR. LIPPINCOTT | MR. ZURBURG |
| MR. GEE       | MR. HODGES     | MR. HAWKINS |

## GENERAL CHEMISTRY

GEN. CHEM. 11, 12—GENERAL CHEMISTRY—Semesters 1 and 2 (3 and 2)  
3  $\frac{2}{3}$  cr.

*Purpose:* To give the student a general knowledge of the fundamentals of the science of chemistry, through lectures, lecture experiments, and laboratory exercises. *Principal Topics:* A consideration of the basic laws of chemistry and a study of the preparation and properties of the common substances. (*An Introduction to College Chemistry*—Briscoe; *Laboratory Manual, Exercises in General Chemistry*—Hunter.)

MR. HUNTER      MR. ZURBURG

GEN. CHEM. 13, 14—GENERAL CHEMISTRY—Semesters 1 and 2 (3 and 4) 4  $\frac{1}{3}$  cr.

*Purpose:* This course is limited to students majoring in Chemistry, Textile Chemistry, or Chemistry-Engineering. The subject matter is taken up in more detail than in Chemistry 11 and 12 and the two additional hours of laboratory work allow some qualitative analysis procedure to be taken up in the second semester. (*An Introduction to College Chemistry*—Briscoe; *Laboratory Manual, Exercises in General Chemistry*—Hunter.)

MR. HUNTER      MR. ZURBURG

GEN. CHEM. 33, 34—ELEMENTARY CHEMICAL MICROSCOPY—Semesters 1 and 2 (2 and 2) 2  $\frac{2}{3}$  cr.

*Prerequisites:* Anal. Chem. 21, 22; Org. Chem. 21; Geol. 33.

*Purpose:* The first semester will be devoted to the study of the laws of crystallography and crystal forms. During the second semester the student may elect either Elementary Chemical Microscopy or Mineralogy. The Elementary Chemical Microscopy will consist of theoretical consideration of the construction of optical instruments and their uses in chemical work. The laboratory work will include a study of the crystalline structure of common chemicals and their microscopic detection, determi-

nation of particle size and the solution of various practical industrial problems which can best be solved by the use of the microscope.

MR. CALHOUN

MR. HUNTER

MR. CARODEMOS

GEN. CHEM. 41, 42—INORGANIC CHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Gen. Chem. 11, 12; *Suggested:* Phys. Chem. 31, 32.

*Purpose:* A comprehensive survey of the field of inorganic chemistry through lectures and lecture experiments. *Principal Topics:* Development of modern theories of valence and allied subjects and a detailed study of the elements and their compounds, based on the periodic system and including both well-known and rarer elements. (*Systematic Inorganic Chemistry*—Caven and Lander.)

MR. HUNTER

GEN. CHEM. 45—HISTORY OF CHEMISTRY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Org. Chem. 21, 22.

*Principal Topics:* A study of the development of the science of chemistry from the earliest times to the present day. (*History of Chemistry*—J. R. Partington.)

MR. POLLARD

GEN. CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

### ANALYTICAL CHEMISTRY

ANAL CHEM. 21—QUALITATIVE ANALYSIS—Semester 1 (2 and 6) 4 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* To emphasize the principles involved in chemical analysis, to broaden the students knowledge of inorganic chemistry, to develop



deductive reasoning power, and to give practice in manipulation. *Principal Topics:* Solutions and ionization; mass action and the law of chemical equilibrium; solubility product principle; hydrolysis, amphoterism, complex ions; gaseous-liquid and liquid-liquid systems; reactions and equations. The laboratory work consists of analysis of unknown salt mixtures, industrial products, and alloys. (*Qualitative Analysis*—Engelder.)

MR. LIPPINCOTT

ANAL. CHEM. 22—QUANTITATIVE ANALYSIS—Semester 2 (2 and 6) 4 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* To give training for the more advanced work; the time is spent on simple quantitative analyses, both volumetric and gravimetric, which are typical of the subdivisions of the subject. *Principal Topics:* Volumetric analysis; gravimetric analysis; concentration of solutions, acidimetry and alkalimetry; oxidation and reduction, iodimetry; theory of electrolysis, assaying, stoichiometry. The laboratory work consists of the preparation of decinormal solutions; analysis of soda ash, sulphate, chloride, pyrolusite, iron ore, bleaching powder, silver coin, and limestone. (*Quantitative Analysis*—Engelder; *Laboratory Manual of Introductory Quantitative Analysis*—Nichols.)

MR. LIPPINCOTT

ANAL. CHEM. 23—QUALITATIVE ANALYSIS—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* To emphasize for pre-medical students the principles involved in chemical analysis, to broaden the student's knowledge of inorganic chemistry, to develop deductive reasoning power, and to give practice in manipulation. *Principal Topics:* Solutions and ionization; mass action and the law of chemical equilibrium; solubility product principle; hydrolysis, amphoterism, complex ions; gaseous-liquid and liquid-liquid systems, reactions and equations. The laboratory work consists of analysis of unknown salt mixtures, industrial products, and alloys. (*Qualitative Analysis*—Engelder.)

MR. LIPPINCOTT

ANAL. CHEM. 24—QUANTITATIVE ANALYSIS—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* To give training to pre-medical students for the more advanced work; the time is spent on simple quantitative analyses, both volumetric and gravimetric, which are typical of the subdivisions of the subject. *Principal Topics:* Volumetric analysis; gravimetric analysis; concentration of solutions, acidimetry and alkalimetry; oxidation and reduction, iodimetry; theory of electrolysis, assaying, stoichiometry. The laboratory work consists of the preparation of decinormal solutions; analysis of soda ash, sulphate, chloride, pyrolusite, iron ore, bleaching powder, silver coin, and limestone. (*Quantitative Analysis*—Engelder; *Laboratory Manual of Introductory Quantitative Analysis*—Nichols.)

MR. LIPPINCOTT

ANAL. CHEM. 31—QUANTITATIVE ANALYSIS—Semesters 1 and 2 (1 and 3) 2 cr.

*Prerequisite:* Anal. Chem. 22.

*Purpose:* To give further training and experience in quantitative chemical analysis through lectures and laboratory work. This course involves both gravimetric and volumetric analysis. *Principal Topics:* Complete analysis of clays, silicates, a partial analysis of coal, pig iron, and steel. Volumetric analysis includes the determination of arsenic, copper, and lead in insecticides. Quantitative analysis of alloys, including some quantitative electrometric separations. (*Quantitative Analysis*—Mahin.)

MR. MITCHELL

ANAL. CHEM. 41—TECHNICAL ANALYSIS—Semester 1 (1 and 6) 3 cr.

*Prerequisite:* Anal. Chem. 21 or 22.

*Purpose:* To study the chemical principles involved, and give training and experience in the analysis of a great many industrial products. Special attention is given to the standard, accurate methods. *Principal Topics:* Fertilizer analysis, organic and mineral analysis of feeding materials; complete water analysis, both mineral and sanitary; the analysis of sugar products, special attention being given to the use of the polariscope in this work. (Methods of the Association of Official Agricultural Chemists.)

MR. MITCHELL

ANAL. CHEM. 42—STOICHIOMETRY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* To study various types of fundamental problems in chemistry through lectures and classroom work. *Principal Topics:* Balancing equations, principally oxidation and reduction reactions, gas law problems, atomic and molecular weights; factors; electrochemical problems; standard solutions; problems dealing with indirect analysis; calculations involving the elimination or introduction of a constituent; acidimetry and alkalinity; adjusting solutions to a desired normality and oxidation and reduction problems. (*Calculations of Quantitative Chemical Analysis*—Hamilton and Simpson.)

MR. MITCHELL

ANAL. CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

### INDUSTRIAL CHEMISTRY

IND. CHEM. 41, 42—INDUSTRIAL CHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Junior or Senior standing. *Suggested:* Phys. Chem. 31, 32.

*Purpose:* To study processes, operations, and reactions of chemical manufacture as related to such industries as paper, glass, fertilizer, sugar, leather, petroleum, etc. Visits are made to various plants and inspection reports made.

MR. ZURBURG

IND. CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

## ORGANIC CHEMISTRY

ORG. CHEM. 21—ORGANIC CHEMISTRY—Semester 1 (3 and 6) 5 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* This is an extensive course in which the general principles of organic chemistry and the properties of important compounds receive thorough discussion. *Principal Topics:* Hydrocarbons of the methane, ethylene and acetylene series; saturated, unsaturated and polyhydroxy alcohols; monobasic and polybasic acids; ethers, anhydrides and esters; aldehydes and ketones; amines and amides; cyanogen and related compounds; halogen compounds; compounds containing two unlike substituents; carbohydrates; compounds containing phosphorous, arsenic, sulphur, and metals. (*Textbook of Organic Chemistry*—Wertheim; *Organic Chemistry Laboratory Guide*—Wertheim.)

MR. CARODEMOS

ORG. CHEM. 22—ORGANIC CHEMISTRY—Semester 2 (3 and 6) 5 cr.

*Prerequisite:* Org. Chem. 21.

*Purpose:* Same as Chemistry 25. *Principal Topics:* The identification of organic compounds and the determination of their structure; uric acid and related compounds; cyclic hydrocarbons; determination of the structure of aromatic compounds; nitro compounds and sulphonic acids; aromatic amines, nitro compounds and sulphonic acids; aromatic phenols, ethers, acids, aldehydes and ketones; aromatic compounds containing two unlike substituents. (*Textbook of Organic Chemistry*—Wertheim; *Organic Chemistry Laboratory Guide*—Wertheim.)

MR. CARODEMOS

ORG. CHEM. 23, 24—AGRICULTURAL ORGANIC CHEMISTRY—Semesters 1 and 2 (3 and 3) 4 cr.

*Prerequisite:* Gen. Chem. 11, 12.

*Purpose:* To promote a thorough understanding of the fundamentals of plant and animal biochemistry. *Principal Topics:* Emphasis is placed on nomenclature, properties, preparation, reaction and uses of radicals and compounds of organic substances which are known to give rise to understanding of plant and animal biochemistry. A thorough study of carbohydrates, fats, proteins, pigments, vitamins, essential oils and associated



substances of plant and animal origin. (*Organic Chemistry*—Richter; *Laboratory Manual: Laboratory Practices of Organic Chemistry*—Williams and Brewster.)

MR. GEE

ORG. CHEM. 25—ORGANIC CHEMISTRY—Semester 1 (2 and 0) 2 cr.

*Purpose:* To acquaint the students in Vocational Agricultural Education with the principals of carbon chemistry. *Principal Topics:* The scope of study includes generalized properties and characteristics of organic substances of value to students preparing to teach Vocational Agriculture. (*Introduction to Organic Chemistry*—Garard.)

MR. GEE

ORG. CHEM. 31, 32—ADV. ORG. CHEMISTRY—Semesters 1 and 2 (2 and 3) 3 cr.

*Prerequisite:* Org. Chem. 22.

*Purpose:* To review and study more intensively representative classes of organic compounds, and to survey available methods for establishing the structure and configuration of organic molecules. In the laboratory the methods of organic synthesis and analysis are studied. (*Identification of Organic Compounds*—Shriner and Fuson; *Organic Syntheses, Vol. 1*—Wiley and Sons.)

MR. CARODEMOS

ORG. CHEM. 34—DAIRY CHEMISTRY—Semester 2 (2 and 3) 3 cr.

*Prerequisite:* Org. Chem. 23, 24; Suggested, Anal. Chemistry 21, 22.

*Purpose:* A study of Chemistry in its relation to the dairy industry. *Principal Topics:* Acquainting the student with the manipulation of apparatus found in the modern dairy laboratory; analyses of milk and dairy products; detection of adulterants, preservatives, colors, and causes of spoilage of dairy products. (References.)

MR. CARODEMOS

ORG. CHEM. 41, 42—GENERAL BIOCHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Anal. Chem. 21, 22; Org. Chem. 21; *Suggested:* Phys. Chem. 31.

*Purpose:* To give a comprehensive outlook and an acquaintance with the broader aspects of biochemistry. This course is of particular value to the pre-medical, pre-dental, and agricultural student. (*Outlines of Biochemistry*—Gortner.)

MR. CARODEMOS

ORG. CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

### PHYSICAL CHEMISTRY

PHYS. CHEM. 31, 32—PHYSICAL CHEMISTRY—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisites:* Calculus; Anal. Chem. 22; Org. Chem. 21, 22.

*Purpose:* Modern chemical theories of matter, solutions and reactions. *Principal Topics:* Gases, liquids, and solids; thermochemistry; theory of solutions; chemical kinetics; equilibrium in homogeneous and heterogeneous systems; elementary electro-chemistry. (*Outlines of Theoretical Chemistry*—Getman and Daniels.)

MR. POLLARD

PHYS. CHEM. 33, 34—PHYSICAL CHEMISTRY LABORATORY—Semesters 1 and 2 (0 and 4) 2 cr.

This course must be taken with Phys. Chem. 31, 32.

*Purpose:* Laboratory determinations of physico-chemical properties, and laboratory studies of physical chemical principles. (*Exercises in Physical Chemistry*—Pollard.)

MR. POLLARD

PHYS. CHEM. 41, 42—COLLOID CHEMISTRY—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* Phys. Chem. 31, 32.

*Purpose:* The general theory of colloid chemistry and its applications. *Principal Topics:* Absorption, contract catalysis, surface tension, preparation, and properties of colloidal solutions, gelatinous precipitates and jellies, emulsions, foams, fog, smoke. (*Colloid Chemistry*—W. D. Bancroft.)

MR. POLLARD

PHYS. CHEM. 43, 44—ELECTROCHEMISTRY—Semesters 1 and 2 (1 and 2)  
2 cr.

*Prerequisite:* Phys. Chem. 31, 32.

*Purpose:* Theoretical and applied electrochemistry with laboratory practice in electrochemical measurements and determinations. (*Theoretical and Applied Electrochemistry*—Thompson.)

MR. POLLARD

PHYS. CHEM. 50—THESIS—Semester 2 (0 and 9) 3 cr.

*Principal Topics:* Original investigation of an assigned problem in some branch of chemistry selected by the student. This work may be carried out under the supervision of any qualified member of the staff. A thesis covering the work is a requirement of the course.

STAFF OF SCHOOL OF CHEMISTRY

## CIVIL ENGINEERING

MR. CLARKE

MR. GLENN

\*\*MR. PERRY

\*MR. STEVENSON

MR. DOUGHERTY

C. E. 21, 22—SURVEYING—Semester 1 (2 and 0) 2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math. 11, 12, 13, 14; Drawing 13, 14.

*Purpose:* To give the student considerable facility in the theory and use of modern surveying instruments and methods, in both field and office

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\*Resigned.

\*\*In Place of Mr. Stevenson

work. *Principal Topics:* Survey of tract, computation of area; description by metes and bounds; U. S. Public Land Surveys; differential and profile leveling and plotting; topographic surveying and mapping. (*Davis, Foote and Rayner.*)

MR. CLARKE

C. E. 21a, 22a—SURVEYING FIELD AND OFFICE WORK—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Math. 11, 12, 13, 14; Drawing 13, 14.

*Purpose:* To put into practice the theoretical principles covered in C. E. 21, 22; which subject must be scheduled concurrently with this. The work during the first semester covers surveys of tracts for legal description and computation of area; differential and profile leveling and plotting. The work during the second semester covers topographic surveying and mapping. (*Davis, Foote and Rayner.*)

MR. CLARKE

MR. DOUGHERTY

C. E. 23—SURVEYING—Semester 1 or 2 (1 and 0) 1 cr.

*Prerequisite:* Math. 11, 12, 13, 14; Drawing 13, 14; Registration in C. E. 23a.

*Purpose:* To give students not majoring in Civil Engineering practice in making preliminary surveys for, and computing cost of, engineering projects. *Principal Topics:* The use of surveying instruments, maps, profiles, cross-sections, land measurement, earth-work computations, and road location. (*Elementary Surveying*—Rayner.)

MR. DOUGHERTY

C. E. 23a—SURVEYING FIELD AND OFFICE WORK—Semester 1 or 2 (0 and 2) 2/3 cr.

*Prerequisite:* Math. 11, 12, 13, 14; Drawing 13, 14; Registration in C. E. 23.

*Purpose:* To put into practice the theoretical principles covered in C. E. 23. (*Elementary Surveying*—Rayner.)

MR. DOUGHERTY



C. E. 28—MATERIALS AND METHODS OF CONSTRUCTION—Semester 2 (2 and 0) 2 cr.

*Purpose:* To familiarize the student with the common materials and technical terms used in construction, and the ways in which the materials are used. *Principal Topics:* Foundations on soft soils; concrete, brick, and stone masonry; wood, steel, and reinforced concrete construction; floor and roof coverings; plastering and painting; and methods of cost-keeping. (*Building Construction*—Huntington.)

MR. CLARKE

C. E. 30—SUMMER SURVEYING CAMP

Between the Sophomore and Junior years, two weeks in June, at *Camp Clarke*, near Steedman, S. C. 3 credits.

*Prerequisite:* C. E. 21, 22.

*Purpose:* To give civil engineering students experience not only in camp organization and sanitation, but also in meeting field problems which arise in a rough country, several miles away from headquarters. *Principal Topics:* Reconnaissance, preliminary survey, and final location survey for a road between two selected termini, including plotting of map and profile. (See also C. E. 36.)

MR. CLARKE

C. E. 31—MECHANICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22. Physics 21, 22, 23, 24.

*Purpose:* To enable the student to combine his knowledge of mathematics and physics for computing and analyzing balanced forces acting on a point, a member, or a structure. The graphical method of solving problems in statics is also studied. *Principal Topics:* Components, resultants, reactions, moments of forces, center of gravity, moment of inertia. (*Applied Mechanics*—Poorman.)

MR. GLENN

MR. PERRY

C. E. 32—STRENGTH OF MATERIALS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* C. E. 31 or M. E. 31.

*Purpose:* To study the strength of brick, stone, concrete, wood, and steel under the action of tensile, compression, flexural, and shearing stresses. The elastic theory is used throughout the course. *Principal Topics:* Compression, tension, shear, modulus of elasticity, riveted joints, beams columns, struts, slab. (*Strength of Materials*—Boyd.)

MR. GLENN                      MR. PERRY

C. E. 34—GRAPHIC STATICS—Semester 2 (1 and 2) 1 2/3 cr.

*Prerequisite:* C. E. 31.

*Purpose:* A study is made in this course of the most useful application of graphical analysis to stresses in structures. Stresses due to wind and dead weight on roof trusses are analyzed. The design for one roof truss is worked out in detail. *Principal Topics:* Types of roof trusses, wind loads, dead loads, Maxwell diagrams, string polygons, built up members, column formula. (*Stresses in Framed Structures*—Ketchum.)

MR. PERRY

C. E. 35—ROUTE SURVEYING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* C. E. 21, 22, 30.

*Purpose:* To familiarize the student with the special problems which arise in a survey for railroads, highways, canals, sewers, pipe lines, and transmission lines. *Principal Topics:* Theory of simple, compound, and reversed curves; transition spiral; railroad turnouts, computations of earthwork. (*Route Surveying*—Pickels and Wiley.)

MR. CLARKE

C. E. 36—ROADS AND PAVEMENTS—Semester 2 (3 and 3) 4 cr.

*Prerequisite:* C. E. 21, 22, 30, 35.

*Purpose:* A study of the design, location, and construction of roads and pavements. *Principal Topics:* Economics of highway construction, location and design. Study of factors relating to highway construction, methods, and materials.

The design period is devoted to the preparation of detailed plans for a highway, using the notes taken in C. E. 30 at the Sophomore Summer Camp. (*Highway Design and Construction*—Bruce.)

MR. GLENN

C. E. 37—STRESSES IN SIMPLE STRUCTURES—Semester 1 (0 and 4)  
1 1/3 cr.

*Prerequisites:* Math. 21, 22; Physics 24, 26; Drawing 25, 28.

*Purpose:* The calculation of stresses in statically determinate structures. *Principal Topics:* This course covers the application of the principles of mechanics as applied to the determination of stresses in roof trusses, bents, cranes, bridges and other simple structures. (*AISC Handbook of Steel Construction and Simple Steel Structures*—Morris.)

MR. PERRY

C. E. 38—DESIGN OF SIMPLE STRUCTURES—Semester 2 (0 and 6) 2 cr.

*Prerequisites:* Math. 21, 22; Physics 24, 26; Drawing 25, 28; C. E. 37.

*Purpose:* The study of the elementary principles of design of roof trusses, bents, cranes, bridges and other simple structures of wood and steel. Included in this course is the complete detailed analysis and design of a railroad plate girder bridge. (*AISC Handbook of Steel Construction and Simple Steel Structures*—Morris.)

MR. PERRY

C. E. 41—STRUCTURAL DESIGN—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Drawing 25, 28; C. E. 31, 34; C. E. 32 or M. E. 31, 49; C. E. 37; C. E. 38.

*Purpose:* Fundamentals of structural steel design. *Principal Topics:* The complete detailed design of a steel highway bridge along with the economics of design. (*Stresses in Simple Structures*—Urquhart and O'Rourke. *Design of Steel Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 42—STRUCTURAL DESIGN—Semester 2 (2 and 6) 4 cr.

*Prerequisite:* C. E. 31, 32 or M. E. 31, 49, and C. E. 34, 37, 38, 41, 45.

*Purpose:* A study of the design and construction of reinforced concrete structures. *Principal Topics:* Economics and design of reinforced concrete, bridges, piers, abutments, and retaining walls, and buildings. (*Highway Bridges*—Kirkham; *Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 43, 44—MATERIALS TESTING LABORATORY—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* C. E. 32, 36.

*Purpose:* A study of the physical properties of construction materials and the standard methods of determining these properties. *Principal Topics:* Physical test and analysis of construction materials, Portland cement, sand, concrete, etc., with special reference to highway materials both bituminous and non bituminous. In this course is included a study of Soil Mechanics as pertains to soil stabilization, with standard tests to determine the physical properties of soils.

MR. GLENN

C. E. 43.5—FOUNDATIONS—Semester 1 (2 and 0) 2 cr.

*Purpose:* A study of foundations for engineering structures and the effect thereon of the mechanics of soils.

C. E. 45—REINFORCED CONCRETE DESIGN—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* C. E. 31, 34, 32, or M. E. 31, 49.

*Purpose:* A study of theory and practice of reinforced concrete design. *Principal Topics:* Elements of Designs of Reinforced Concrete, beams, slabs, columns, footings, etc. (*Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 46—MUNICIPAL AND SANITARY ENGINEERING—Semester 2 (5 and 0) 5 cr.

*Prerequisite:* C. E. 49.

*Purpose:* To familiarize the student with the procedure necessary to supply an adequate amount of potable water for public or private purposes, and the design and construction of sewerage systems and sewage treatment plants. *Principal Topics:* Quantity of water necessary, sources of supply, methods of utilizing source of supply; analysis, treatment of unpotable water; impounding reservoirs, pipe lines, methods of distribution, fire protection; amount of sewage, separate or combined sewerage systems, specific hydraulic problems arising in sewer design, manholes, and other appurtenances; maintenance of sewers, disposal of sewage by dilution, and methods of treatment by sedimentation, septic



tanks, Imhoff tanks, contact beds, trickling filters, intermittent sand filters, activated sludge, principles of irrigation by sewage. (*Water Supply and Sewerage*—Steel.)

MR. CLARKE

C. E. 47—REINFORCED CONCRETE DESIGN—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* C. E. 31, 32, 34, or M. E. 31, 49.

*Purpose:* To give students not majoring in Civil Engineering a working knowledge of the theory of reinforced concrete design. *Principal Topics:* Design of reinforced concrete slabs, beams, girders, columns, and foundations. (*Design of Concrete Structures*—Urquhart and O'Rourke.)

MR. GLENN

C. E. 48—CITY PLANNING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Registration in Civil Engineering in either the Senior or Junior year. *Elective Course:* Offered only if the registration justifies.

*Purpose:* To acquaint the student with the special problems confronting a city engineer or city manager not specifically of an engineering nature, but for the solution of which the public looks to the city officials. *Principal Topics:* Origin, growth, and development of cities; streets and street systems; traffic control; railway and water traffic problems; airports; parks and playgrounds; zoning; legal problems involved (*Principles of City Planning*—Lohmann.)

MR. CLARKE

C. E. 49—HYDRAULICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Phys. 21, 22, 23, 24.

*Purpose:* To acquaint the student with the behavior of water at rest or in motion. *Principal Topics:* Pressures exerted by water at rest; methods of measuring pressure; principles of water in motion; Bernoulli's theorem; measurement of water by orifices, weirs, nozzles, and Venturi meters; flow of water through short and long pipes; flow of water in open channels. (*Hydraulics*—Schoder and Dawson.)

MR. CLARKE

C. E. 50—THESIS—Semester 1 or 2. 1 or 2 credits. (3 credits for exceptional work.)

Civil Engineering students of exceptional ability, with the permission of the Head of the Civil Engineering department may choose as an elective, the preparation and submission of a thesis covering some phase of Civil Engineering. This thesis may be either an independent experimental investigation entered into with the hope of discovery of new engineering knowledge, or the independent prosecution of some already somewhat stabilized problem in engineering design. Those students who desire to submit a thesis, as a part of their free electives, must present to the Head of the Civil Engineering Department not less than one month prior to the opening of the semester during which the thesis work is intended to be done, a complete outline of the work contemplated in the proposed thesis and the projected method of procedure. (Amount of credit given depends upon the nature of the subject, the amount of time devoted to it, and the quality of the work.)

MR. CLARKE

### DAIRY

MR. LAMASTER

MR. GOODALE

DAIRY 21—INTRODUCTORY DAIRYING—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give a practical working knowledge of dairy husbandry and dairy products. *Principal Topics:* History of dairying, dairy breeds, feeds and feeding, judging dairy animals, dairy farm buildings, quality milk production, testing milk and some of its products, the manufacture of milk products, and the food value of milk and milk products. (*Elements of Dairying*—T. M. Olson.)

MR. GOODALE

DAIRY 31—DAIRY CATTLE JUDGING—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give an understanding of dairy form, breed type, and relations between form and function in dairy cattle. *Principal Topics:* Study of score cards, show yard requirements and classifications; fitting cattle for show and sale; values as influenced by form; buying dairy cattle; practice in judging Jersey, Guernsey and Holstein cattle of all ages.

MR. LAMASTER

DAIRY 32—GENETICS—Semester 2 (2 and 2) 2 2/3 cr.

Suggested antecedent course: Ag. Ec. 33.

*Purpose:* To give the student an understanding of the principles of heredity and variation with special reference to their application to the animal kingdom. *Principal Topics:* Mendel's law, physical basis of inheritance, chromosome theory, linkage, expression and interaction of factors, origin of hereditary differences, inheritance of quantitative characters, biometric methods. (*Principles of Genetics*—Sinnott and Dunn—Second Edition.)

MR. LAMASTER

\*DAIRY 34—DAIRY PLANT ORGANIZATION AND MANAGEMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give a comprehensive understanding of the business of operating dairy plants with special emphasis on organization and practical management problems. *Principal Topics:* Survey before organization, form of organization, creamery construction, sewage disposal, refrigeration, labor, purchasing raw materials, equipment and supplies, power, water, rent, depreciation, interest, insurance, overrun, mechanical losses, manufacturing unit costs, marketing records, salesmanship, advertising, business correspondence, credits and collections, creamery bookkeeping, drawing creamery plans, and mathematical problems for the dairy plant operator. (*Management of Dairy Plants, Revised Edition, 1938*—Mortensen.)

MR. GOODALE

DAIRY 35—DAIRY CATTLE FEEDING AND MANAGEMENT—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the fundamental principles in the care, feeding, and management of dairy cattle of all ages. *Principal Topics:* General considerations in selecting a breed, selecting the individual cow, calf raising, growth and development, raising dairy heifers, care and management of the milking herd, milking factors, feeding for milk production, stables for cows, dairy barn equipment, handling manure. (*Dairy Cattle Feeding and Management, Third Edition, 1938*—Henderson.)

MR. LAMASTER

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\*Dairy 34 and 36 are given in alternate years. Dairy 34 will be offered in 1940-1941.

\*DAIRY 36—MARKET MILK—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Dairy 21.

*Purpose:* To give a comprehensive understanding of the care and handling of market milk. *Principal Topics:* Size and importance of market milk industry, chemical and physical properties of milk and its constituents, microbiology of milk, chemical and bacteriological examination of milk, food value of milk, grades, production of clean milk, cooling methods, refrigeration, inspection methods, judging milk and cream, dairy buildings, milk plant operation, transportation and distribution of milk, and mathematical problems in common use. (*Market Milk and Related Products*—Sommer.)

MR. GOODALE

DAIRY 41—DAIRY MANUFACTURES (Butter and Soft Cheeses)—Semester 1 (2 and 3) 3 cr.

*Prerequisite:* Dairy 21 and Chem. 38.

*Purpose:* To give a thorough knowledge of the manufacture of creamery butter, and the processing of soft cheeses. *Principal Topics:* History of butter making, care of cream on the farm, buying and grading cream, inspection and testing methods, neutralization, pasteurization, starters and cream ripening, churning cream and all subsequent processes until butter is ready for market, composition control, butter scoring, butter storage, marketing equipment, refrigeration and sanitation. Also studies on complete processing methods for common varieties of soft cheeses. (*Butter*—Fourth Edition, 1939—Totman, McKay and Larsen.)

MR. GOODALE

DAIRY 42—DAIRY MANUFACTURES (Ice Cream and Condensed Milks)—Semester 2 (2 and 4) 3 1/3 cr.

*Prerequisite:* Dairy 21 and Chem. 38.

*Purpose:* A thorough study of ice cream manufacture and the related problems of producing condensed milk and milk powder. *Principal Topics:* History of ice cream making, classification, composition, ingredients used, standardizing mixes, processing mixes, testing, freezing, whipping abilities, defects in ice cream, handling, packaging, hardening, shipping, sugars, egg products, stabilizers, chocolate products, vanillas,

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\*Dairy 34 and 36 are given in alternate years. Dairy 34 will be offered in 1940-1941.



fruits, ices and sherbets, specials, costs and merchandising, ice cream as a food, and bacteriology of ice cream. Also study of condensed milks and milk powders as related to the ice cream industry. (*Ice Cream Making*—Sommer, third edition.)

MR. GOODALE

DAIRY 43—DAIRY CATTLE BREEDING—Semester 1 (1 and 2) 1 2/3 cr.

*Prerequisite:* Dairy 32, Genetics.

*Purpose:* To give the student an understanding of the methods used in developing and improving the breeds of dairy cattle. *Principal Topics:* Breed history, pedigrees, advanced register, methods of indexing proved sires, statistical study of the relations of environment to production.

MR. LAMASTER

DAIRY 48—THE NUTRITION OF DAIRY CATTLE—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Dairy 35.

*Purpose:* To give the student an understanding of the methods by which the animal body converts vegetable products into animal products. *Principal Topics:* Composition of animals and feeding stuffs, digestion and resorption, circulation, respiration, and excretion, metabolism, balance of nutrition, requirements for maintenance, growth, reproduction, and milk production, function of minerals and vitamins. (*Animal Nutrition*—Maynard.)

MR. LAMASTER

DAIRY 51—SEMINAR—Semester 1 (1 and 0) 1 cr.

DAIRY 52—SEMINAR—Semester 2 (1 and 0) 1 cr.

*Prerequisite:* Dairy 21 and Dairy 35.

*Purpose:* To study special research problems in production and manufactures and to report the exposition of the results by thesis. *Principal Topics:* Special selected individual topics not fully covered in course work, with emphasis placed on latest research.

MR. LAMASTER

MR. GOODALE

## DRAWING

MR. KLUGH

MR. HARRIS MR. HODGE MR. DOUGLASS MR. SHIGLEY MR. CHAPMAN

DRAWING 11—FREEHAND DRAWING—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.

*Purpose:* To give the student a training in seeing and representing proportion and detail. *Principal Topics:* Proportion, detail, perspective.

MR. HODGE MR. DOUGLASS

DRAWING 12—MECHANICAL DRAWING—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Purpose:* To train the student in the fundamentals of mechanical drawing to the point that he will be able to read drawings and make drawings of simple subjects. *Principal Topics:* Orthographic projection, dimensioning, blue printing. (Text to be announced.)

MR. HODGE MR. DOUGLASS

DRAWING 13—ENGINEERING DRAWING—Semester 1 (0 and 4)  $1\frac{1}{3}$  cr.

*Purpose:* To give the student a thorough grounding in the fundamental principles of Engineering Drawing. *Principal Topics:* Lettering, orthographic projection, threads, sectioning, tracing. (*Engineering Drawing*—French.)

MR. HARRIS MR. SHIGLEY MR. DOUGLASS MR. CHAPMAN

DRAWING 14—ENGINEERING DRAWING—Semester 2 (0 and 4)  $1\frac{1}{3}$  cr.*Prerequisite:* Drawing 13.

*Purpose:* To continue Drawing 13, bringing in refinements and details that time did not permit in the fundamental course. About one-half of this course will be freehand sketching. (*Engineering Drawing*—French.)

MR. HARRIS MR. SHIGLEY MR. DOUGLASS MR. CHAPMAN

DRAWING 25—MECHANICAL DRAWING—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.*Prerequisite:* Drawing 14.

*Purpose:* To ground the student in those fundamentals and essentials of the language of the engineer. *Principal Topics:* A continuation of

the work given in Drawing 14; the descriptive geometry applications to graded problems, reading drawings, and layout work. (*Notes and Engineering Drawing—French.*)

MR. KLUGH

MR. DOUGLASS

DRAWING 26—ELEMENTARY DESIGN AND KINEMATICS—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Drawing 25.

*Purpose:* To train the student to apply problems in drafting room solution. *Principal Topics:* Elementary principles in Machine Design, carefully studied and worked and in class problems, theory and practice involving problems in Kinematics and applications to some principles in machine design. (*Engineering Kinematics—Smith.*)

MR. KLUGH

MR. DOUGLASS

DRAWING 28—STRUCTURAL DRAWING—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Drawing 25.

*Purpose:* To acquaint the student with those needful helps in taking up major design problems in the structural field. *Principal Topics:* Elementary structural principles; study of symbols, proportions, and minor design, reading of structural drawings, study of methods in drafting, tracing, and blue printing. (*Engineering Drawing—French.*)

MR. KLUGH

MR. DOUGLASS

DRAWING 31—MACHINE DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26.

*Purpose:* To teach the student the aid of layouts in the solution of many of his problems. *Principal Topics:* The course is a continuation of Drawing 26, giving a more extended course in the theory and application of design problems; calculations required and specifications stressed. (*Notes and Engineering Kinematics—Smith.*)

MR. KLUGH

MR. DOUGLASS

DRAWING 32—MACHINE DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Drawing 31.

*Purpose:* To give the proper background to the student before he takes up the design problems in his major subject. *Principal Topics:* Simple problems in design, stressing the theory of design and application to specific problems. Calculations required, discussions encouraged concerning involved problems, theory stressed above other things, for the purpose of understanding some principles needed in the design of machines. (*Machine Design*—Bradford and Eaton.)

MR. KLUGH

## ECONOMICS

MR. WARD

MR. GATES

MR. BURTNER

ECON. 23, 24—PRINCIPLES OF ECONOMICS—Semesters 1 and 2 (2 and 0)  
2 cr.

*Prerequisite:* Sophomore standing.

*Purpose:* To teach fundamental principles and lay the foundations for more detailed study of special problems. *Principal Topics:* Theory of value; specialization and exchange; land, labor, and capital as productive forces; rent, wages, interest, and profits as distributive shares of the national income; money and banking; risk-taking; business cycles, and foreign trade. (*Economic Principles, Problems and Policies*—Kiekhofer.)

MR. WARD

MR. GATES

MR. BURTNER

ECON. 31—CONTEMPORARY ECONOMIC PROBLEMS—Semester 1 or 2 (3 and 0) 3 cr.

*Prerequisite:* Econ. 23 and 24.

*Purpose:* To present a critical analysis of the attacks on the structure and workings of the present economic system and of the leading proposals for the economic reorganization of society. *Principal Topics:* The integration of industry; industrial conflict; labor problems, the price system and its control; social insurance; government ownership and regulation; comprehensive programs of economic policy such as liberalism, socialism, and economic planning. (*Contemporary Economic Problems*—Taylor.)

MR. WARD



ECON. 32—MONEY AND BANKING—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Econ. 23 and 24.

*Purpose:* To survey the field of monetary standards and banking systems, together with a comprehensive study of the principles of money and banking. *Principal Topics:* The origin, nature, and functions of money; monetary standards, monetary history of the United States; money and prices; commercial banking and its development in the United States; foreign exchange; the Federal Reserve System, and the problem of price stabilization. (*Money and Banking*—Bradford.)

MR. WARD

ECON. 44—INTRODUCTION TO BUSINESS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Economics 23 and 24, and permission of the instructor.

*Purpose:* To acquaint the student with the organization of American industries, the terms used, methods followed, problems encountered, and ways in which they are handled by business men. *Principal Topics:* The tools of industrial inquiry; business organization; production methods, problems and costs; labor relations and labor problems; prices and price arrangements; financing methods and problems; tax calculations and problems and industrial and economic planning. (*Introduction To Business*—Spengler and Klein.)

MR. GATES

## ELECTRICAL ENGINEERING

MR. RHODES

MR. TINGLEY

MR. CREDLE

MR. STEVENSON

MR. THERKELSEN

E. E. 22—ELECTRIC CIRCUITS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Concurrent with Phys. 22 and Math. 22.

An introductory course for sophomore electrical engineers dealing with basic ideas and the fundamental laws of electric and electromagnetic circuits.

MR. RHODES

MR. TINGLEY

E. E. 31—DIRECT-CURRENT MACHINERY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* Phys. 21, 22; Math. 21, 22; E. E. 22.

The theory, construction, and operating characteristics of direct-current generators and motors; industrial applications; control equipment; and direct current transmission and distribution. This course also includes continuation work on basic principles begun in E. E. 22.

MR. RHODES

MR. TINGLEY

E. E. 31a—ELECTRICAL MEASUREMENTS—Semester 1 (0 and 4) 1 1/3 cr.

*Prerequisite:* Must parallel or follow E. E. 31.

A laboratory study of the principles of direct-current, magnetic, and electrostatic circuits and the instruments used in their measurement. Emphasis is placed on proper choice of equipment, correct laboratory procedure and accurate presentation of results.

MR. CREDLE

E. E. 32—ALTERNATING-CURRENT CIRCUITS—Semester 2 (5 and 0) 5 cr.)

*Prerequisite:* E. E. 31.

The theory of the reactions of electric circuit constants to alternating currents and the development of a logical mathematical solution of single-phase and polyphase circuits.

MR. TINGLEY

MR. CREDLE

E. E. 32a—ELECTRICAL LABORATORY—Semester 2 (0 and 4) 1 1/3 cr.

*Prerequisite:* E. E. 31. Must parallel or follow E. E. 32.

Part I. Tests to determine the principal characteristics of direct-current generators, motors and auxiliaries.

Part II. Experiments on single-phase and polyphase alternating current circuits. Embraces a study of leading types of alternating current instruments.

MR. CREDLE

E. E. 33—DIRECT-CURRENT MACHINERY—Semester 1 (4 and 0) 4 cr.

*Prerequisite:* Phys. 21, 22; Math. 21, 22.

The laws of the electric and magnetic circuits; the theory and operating characteristics of direct-current generators and motors; efficiency of direct-current machinery; direct-current distribution.

MR. STEVENSON

E. E. 33a—ELECTRICAL MEASUREMENTS—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 33.

A course embracing essentially the same experiments as those given in E. E. 31a.

MR. STEVENSON

E. E. 34—ALTERNATING-CURRENT CIRCUITS—Semester 2 (4 and 0) 4 cr.

*Prerequisite:* E. E. 33.

Single-phase and polyphase circuits; alternating-current instruments; theory of alternating-current transformers.

MR. STEVENSON

E. E. 34a—ELECTRICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 34.

A course embracing essentially the same experiments as those of E. E. 32a.

MR. STEVENSON

E. E. 35—ELECTRICAL MACHINERY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Phys. 11, 12 or Phys. 21, 22.

An elementary course in direct-current and alternating-current machinery. Intended primarily to acquaint the student with the adaptability of electric motors for specific applications.

MR. THERKELSEN

E. E. 35a—ELECTRICAL LABORATORY—Semester 1 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Physics 11, 12 or Physics 21, 22.

A series of experiments demonstrating the principal applications of motors and other electrical equipment.

MR. THERKELSEN

E. E. 36—ELECTRICAL MACHINERY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Phys. 21, 22.

An elementary course in direct-current and alternating-current machinery with special emphasis on operating characteristics and adaptability of specific types for certain duties.

MR. THERKELSEN

E. E. 36a—ELECTRICAL LABORATORY—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* Physics 21, 22.

A number of laboratory demonstrations of the characteristics of electrical equipment used by civil engineers.

MR. THERKELSEN

E. E. 38—VOCATIONAL ELECTRICITY—Semester 2 (1 and 2)  $1\frac{2}{3}$  cr.

*Prerequisite:* E. E. 35.

Planned for teachers in high schools. It embraces (1) the application of elementary principles of electricity and magnetism to experiments and projects of special interest and value to high school students (2) the principles of organization of such work by the instructor.

MR. CREDLE

E. E. 41—ALTERNATING-CURRENT MACHINERY—Semester 1 (5 and 0) 5 cr.

*Prerequisite:* E. E. 31, 32.

Theory, design, and operating characteristics of transformers, synchronous machines, polyphase induction motors, and alternating-current machinery auxiliaries.

MR. RHODES



E. E. 41a—ELECTRICAL LABORATORY—Semester 1 (1 and 3) 2 cr.

*Prerequisite:* Must parallel or follow E. E. 41.

Part I. A complete experimental analysis of losses and operating characteristics of direct-current machines (continuation of E. E. 32a).

Part II. A laboratory study of the operating characteristics of (1) synchronous generator including phase connections, voltage regulation, efficiency and parallel operation (2) induction regulators and constant-current transformers.

MR. TINGLEY

E. E. 42—ALTERNATING-CURRENT MACHINERY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* E. E. 41.

Part I. A continuation of E. E. 41 embracing single-phase motors, synchronous converters, mercury arc rectifiers, and alternating-current machinery controls.

Part II. Special problems, such as harmonics in generators and transformers, short circuits, machine and system stability.

MR. RHODES

E. E. 42a—ELECTRICAL LABORATORY—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* E. E. 41, 41a.

Continuation of E. E. 41a including a comprehensive study of single phase transformers, operating characteristics of polyphase induction motors, synchronous motors, synchronous converters, single-phase motors, and automatic magnetic and electronic control equipment.

MR. TINGLEY

E. E. 43—ALTERNATING-CURRENT MACHINERY—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* E. E. 34.

The theory and operating characteristics of transformers, synchronous generators, and motors, polyphase induction motors, single-phase motors, synchronous converters, rectifiers, and auxiliaries.

MR. CREDLE

E. E. 43a—ELECTRICAL LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Must parallel or follow E. E. 43.

A course paralleling E. E. 43 for the experimental determination of the characteristics of principal types of alternating-current transformers, generators, motors, converters, and controls.

MR. CREDLE

E. E. 44—ELECTRIC POWER TRANSMISSION—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* E. E. 41.

The electrical and economic principles of electric power transmission. A comprehensive study of line constants and losses and how they affect the regulation of the long and short electrical line; system regulations protection and stability; and efficiency of transmission of large blocks of power.

MR. TINGLEY

E. E. 45—ELECTRICAL DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* E. E. 31.

The application of the fundamental principles of electric and magnetic circuits through a complete design of a generator or motor, including prediction of operating characteristics from design data.

MR. RHODES

E. E. 46—ELECTRICAL DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* E. E. 41.

Problems in transformer and induction motor design and in transmission system regulation. These problems correlate with E. E. 41 and E. E. 44.

MR. RHODES

E. E. 47—ELECTRONICS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* E. E. 32 or E. E. 34.

The properties of electron tubes with particular reference to their uses in industry and in communication. Characteristics of high vacuum and gas filled diodes, high vacuum triodes and thyatronns are the principal topics.

MR. CREDLE

E. E. 48—RADIO COMMUNICATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 47.

The application of electron tubes to the field of communication. The use of vacuum tubes as audio frequency amplifiers, radio frequency amplifiers, detectors, and oscillators. The elements of net work theory.

MR. CREDLE

E. E. 49—ADVANCED INDIVIDUAL PROBLEM—Semester 1 or 2 (2 and 0) 2 cr.

Intended to enable a limited number of students to undertake specific projects in which they may be especially interested. The laboratories afford excellent facilities for this work.

DEPARTMENT STAFF

E. E. 50—POWER STATIONS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 41 or 43.

A course covering the general subject of economic production of electrical energy and the study of typical arrangements of generating equipment in steam and in hydro-stations.

MR. RHODES

E. E. 52—ELECTRICAL DISTRIBUTION—Semester 2 (2 and 0) 2 cr.

Technical and economic features of local wiring systems; city and rural distribution; control and protective equipment. Includes reference reading and preparation of papers for class presentation.

MR. TINGLEY

E. E. 54—ILLUMINATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* E. E. 41 or 43.

Fundamental principles of illumination embracing light sources; photometry; reflection and absorption; color; street, residence, industrial and commercial lighting.

MR. RHODES

E. E. 56—ELECTRIC TRANSIENTS—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* E. E. 32.

To enable a few of the more advanced electrical engineering students to obtain a clearer conception of the physical phenomena and mathematical analysis of electrical circuits and machines in the transient state and to verify the theory involved by means of oscillographs.

MR. TINGLEY

### ENGLISH

MR. DANIEL

|             |            |              |              |
|-------------|------------|--------------|--------------|
| MR. BRADLEY | MR. TAYLOR | MR. LANE     | MR. KINARD   |
| MR. LUCAS   | MR. GREEN  | MR. DEAN     | *MR. HENRY   |
| **MR. GAUGH | MR. COX    | MR. McDOWELL | MR. STEPHENS |

ENGLISH 15, 16—COMPOSITION AND READING IN LITERATURE—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To train the students in the use of correct, accurate, and effective language and to acquaint him with outstanding works of the major American authors. *Principal Topics:* Some review of principles of grammar and punctuation; principles of and practice in the various units of composition, especially the paragraph; letter writing; vocabulary; supplementary reading and classroom reports; selected works. (*Century Collegiate Handbook*—Greever and Jones; *The College Reader*—Lovett and Jones; *Practice Handbook in English*—Jones; a dictionary.)

|            |             |           |              |
|------------|-------------|-----------|--------------|
| MR. KINARD | MR. GREEN   | MR. LUCAS | MR. STEPHENS |
| MR. LANE   | *MR. HENRY  | MR. COX   | MR. McDOWELL |
|            | **MR. GAUGH | MR. DEAN  |              |

ENGLISH 21, 22—ENGLISH LITERATURE AND ADVANCED COMPOSITION—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 15 and 16.

*Purpose:* To give the student a more intimate knowledge and appreciation of Nineteenth Century English literature; to cultivate his powers

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\*On leave 1938-1939, 1939-1940.

\*\*In place of Mr. Henry on leave.



of composition for accurate expression. *Principal Topics*: An intensive study of outstanding authors of the Romantic and Victorian periods of English literature; supplementary reading from the best authors; periodic themes based upon reading and other assignments; classroom discussion of themes; consultation with students for individual discussion. (*The Literature of England*, Vol. II—Watt, Wood and Anderson.)

MR. TAYLOR

MR. LANE

MR. KINARD

MR. GREEN

MR. LUCAS

ENGLISH 31—PUBLIC SPEAKING—Semester 1 (2 and 0) 2 cr.

*Prerequisite*: English 21 and 22.

*Purpose*: To train the student in the art of practical public speaking. *Principal Topics*: The improvement of pronunciation, enunciation, voice, and stage presence; outlining and delivery of original speeches; impromptu and extemporaneous speaking; debate; parliamentary practice. (*Better Speech*—Woolbert and Weaver.)

MR. DANIEL

MR. BRADLEY

ENGLISH 32—BUSINESS LAW—Semester 2 (2 and 0) 2 cr.

*Prerequisite*: English 21 and 22.

*Purpose*: To fix the principles of Business law in the student's mind with the view of helping him to avoid legal difficulties. *Principal Topics*: Origin and purpose of laws; contracts; agency; negotiable instruments; sales; personal and real property; cases. (*American Business Law*—Frey.)

MR. DANIEL

MR. BRADLEY

ENGLISH 43, 44—SHAKESPEARE—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite*: English 21 and 22.

*Purpose*: To give the student as comprehensive an acquaintance with the dramatic work of Shakespeare as possible. *Principal Topics*: A general approach to appreciation of plays from the point of view of the theater; Shakespeare's development as a dramatist; matters of character and presentation of individual plays. (A complete edition of Shakespeare's plays; *The Facts about Shakespeare*—Neilson and Thorndike.)

MR. TAYLOR

ENGLISH 45—NEWS WRITING—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give additional training in English through the project method. *Principal Topics:* Gathering the news; kinds of news stories; structure and style; lead; reporting; interviewing; reports.

MR. DANIEL

ENGLISH 46—BUSINESS ENGLISH—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 31 and 32.

*Purpose:* To give training in business customs and practices. *Principal Topics:* Business letters and forms; methods of approach; securing and conducting interviews; presenting plans and propositions; salesmanship; reports; developing a pleasing personality. (*Salesmanship*—Fernald.)

MR. DANIEL

ENGLISH 47, 48—CHAUCER—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give the student familiarity with the language, verse forms, and stories of Chaucer; to cultivate a grasp of fourteenth century thought and literary motivation. *Principal Topics:* (First Semester) reading from the prologue and the Canterbury Tales with other short selections; supplementary reading from contemporary and later critical authors; term paper; (Second Semester). Detailed study of Troilus and Criseyde; term paper. (*The Works of Chaucer*.)

MR. BRADLEY

ENGLISH 49—AGRICULTURAL JOURNALISM—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give training in the fundamentals of journalism; to apply this training to the actual writing and publishing of agricultural copy. *Principal Topics:* Introductory study of the basic principles of journalism; detailed study of agricultural news story, feature story, editorial, and miscellany; periodic publication of agricultural news stories in country weeklies; publication of at least one feature story in an agricultural journal. (*Agricultural Journalism*—Crawford and Rogers.)

MR. BRADLEY

## ENGLISH 50—THESIS—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give the student practice in making research and presenting the results in proper form. *Principal Topics:* Statement of the problem; object and scope of the investigation; history of the problem; possible application of results; plan of procedure. (To be prepared under the direction of a member of the School of General Science and approved as to content by him and as to form by a representative of the English department.)

MR. KINARD

## ENGLISH 53, 54—INTRODUCTION TO DRAMA—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To offer a systematic study of the principles and progress of drama from the time of Aeschylus to the present day. *Principal Topics:* Dramatic history and criticism, representative plays, the stage and theatrical conditions, the continental background of English drama, influence of life of the time on authors, actors and managers, written exercises in dramatic criticism, class discussions of new trends in legitimate drama and movies, controlled breathing, voice training, emotional expression, and the theory of acting. (*Introduction to Drama*—Hubbell and Beaty.)

MR. LANE

## ENGLISH 57, 58—SELECTED MASTERPIECES FROM ENGLISH LITERATURE—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To help students learn and appreciate a variety of literary masterpieces, selections not included in other courses at Clemson. *Principal Topics:* Selections studied vary with classes—a representative list for a semester: *Paradise Lost* (6 books); *Gulliver's Travels*; *Beowulf*; *Diary of Samuel Pepys* (selections); Boswell's *Johnson* (selections); Pope's *Iliad* (selections); *Tom Jones*; Bacon's essays; *Pilgrim's Progress*. (No general text. Cheap editions of some selections are bought.)

MR. KINARD

## ENGLISH 59, 60—AMERICAN LITERATURE—Semesters 1 and 2 (2 and 0) 2 cr.

*Prerequisite:* English 21 and 22.

*Purpose:* To give the student a more thorough knowledge and a deeper appreciation of the literature of our country. *Principal Topics:* During the first semester a study will be made of the period before the Civil War, with special attention to Poe, Emerson, Hawthorne and Melville. During the second semester the study will be continued from Whitman to the present with emphasis upon the literature of the South.

MR. GREEN

### ENTOMOLOGY\*

MR. SHERMAN

MR. DUNAVAN

ENT. 31—INTRODUCTION AND APPLIED ENTOMOLOGY—Semester 1 (2 and 2) 2  $\frac{2}{3}$  cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To give agricultural students information concerning the structure, life-history, and habits of insects in general and to provide instruction in control of the principal injurious species. *Principal Topics:* Insect structure, metamorphosis, habits, characteristics of the principal orders of insects, methods of control of injurious forms. (*Applied Entomology*—Fernald.)

MR. SHERMAN

ENT. 32—GENERAL ENTOMOLOGY—Semester 2 (2 and 4) 3  $\frac{1}{3}$  cr.

*Prerequisite:* Ent. 31.

*Purpose:* Designed especially for students who wish to choose Entomology as their life-work. The aim is to provide basic training in the general phases of Entomology. *Principal Topics:* Near relatives of insects; history of Entomology; insect metamorphosis; classification, habits, and characteristics of the members of the principal families in all orders of insects; technique of collecting and preserving insects. (*Manual for the Study of Insects*—Comstock.)

MR. DUNAVAN

ENT. 41—ECONOMIC ENTOMOLOGY—Semester 1 (2 and 2) 2  $\frac{2}{3}$  cr.

*Prerequisite:* Ent. 31.

*Purpose:* To so equip the student that he will be able to recognize injurious species of insects and their damage and be able to control them

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\*Students who major in Entomology are required to take certain courses in Zoology which are listed under that subject. See Zoology.



intelligently. *Principal Topics*: Effect of cultivation on insect populations; peculiarities of field crops and their insect enemies; identification, life-history, and control of insect enemies of corn, wheat, oats, clover, alfalfa, peas, beans, tobacco, cotton, sugar cane, stored grain, cattle, horses, sheep, swine, poultry, and man. (*Destructive and Useful Insects*—Metcalf and Flint.)

MR. DUNAVAN

ENT. 42—ECONOMIC ENTOMOLOGY—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite*: Ent. 31.

*Purpose*: To train students in the recognition of fruit and vegetable insects and in methods of control of these pests. *Principal Topics*: Beneficial insects, history of insect control, host resistance, theory of insect control, chemistry and preparation of common insecticides, special requirements of control of fruit and vegetable insects, identification, life histories, and control of insect enemies of apples, pears, peaches, plums, cherries, grapes, bush fruits, strawberries, and all vegetable crops. (*Destructive and Useful Insects*—Metcalf and Flint.)

MR. DUNAVAN

ENT. 44—BEEKEEPING—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite*: Ent. 31.

*Purpose*: To provide the student with the knowledge and actual practice of modern beekeeping which will enable him to become a successful beekeeper. *Principal Topics*: Activities of the colony, life-history and metamorphosis of bees; spring, fall and winter management; enemies of bees, swarm control, production of honey, methods of wintering. (*ABC and XYZ of Beekeeping*—Root.)

MR. DUNAVAN

ENT. 45—INSECT MORPHOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite*: Ent. 31 and 32.

*Purpose*: Designed especially for students majoring in Entomology. The aim is to give the student detailed knowledge of the external and internal morphology of insects. *Principal Topics*: Structure of the insect head, thorax, abdomen, and body appendages, structure of muscles, external and internal skeleton, alimentary canal, reproductive, respiratory, and nervous systems, structure and function of glands and sense organs, physiology of respiration and digestion. (*Introduction to Entomology*—Comstock; Laboratory: *Anatomy of Insects*—Comstock & Kellogg.)

MR. DUNAVAN

ENT. 46—SYSTEMATIC ENTOMOLOGY—Semester 2 (1 and 4) 2 1/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To give students specializing in Entomology training in identification of insects by the use of keys. *Principal Topics:* Theory of nomenclature, philology of scientific names, important taxonomists of the past and present, detailed taxonomic study of selected groups of insects.

MR. SHERMAN

ENT. 47—PARASITOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Zoology 12 or 21 and Entomology 31.

*Purpose:* To give technical training in Human Parasitology. Special emphasis is placed on life-cycles of parasites and on identification of the insect carriers and transmitters of parasites. *Principal Topics:* Protozoa, flukes, tapeworms, roundworms, medical entomology.

MR. DUNAVAN

ENT. 51 and 52—SEMINAR—Semesters 1 and 2 (1 and 0) 1 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To train students specializing in Entomology in presenting short talks on scientific topics. To present miscellaneous information not given in regular courses but of value to professional Entomologist. *Principal Topics:* Study of various technical journals, lives of famous Entomologists, tropisms of animals, insect ecology.

MR. DUNAVAN and other staff members.

ENT. 59—INTRODUCTION TO RESEARCH—Semester 1 (1 and 2) 1 2/3 cr.

*Prerequisite:* Ent. 31 and 32.

*Purpose:* To familiarize the student with research methods in Entomology and to enable each student to gather data and write a graduation thesis. *Principal Topics:* Outlining a problem in research, bibliographic methods, graphic presentation of data, reviews of published papers on entomological technique, practical photography.

MR. DUNAVAN

## FRENCH

MR. RHYNE

MR. DEAN

FRENCH 11, 12—BEGINNER'S FRENCH—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To provide the student with a foundation upon which, by subsequent work, he can build up a reading knowledge of French. *Principal Topics:* The fundamentals of grammar with emphasis on pronunciation and the learning of idioms, conversation and dictation. In the second semester a reader will be used.

MR. RHYNE      MR. DEAN

FRENCH 21, 22—SECOND-YEAR FRENCH—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To help the student acquire a reading knowledge of French, to appreciate some of the beauties of French literature, and to read scientific books. *Principal Topics:* Review of grammar, with especial attention to irregular verbs; conversation and dictation continued, prose readings from such authors as Balzac, Daudet, Dumas, Hugo, Loti, Maupassant and Merimee.

MR. RHYNE

FRENCH 31, 32—THIRD-YEAR FRENCH—Semesters 1 and 2 (2 and 0)  
2 cr.

A course in rapid reading of literary or scientific prose.

MR. RHYNE

## GEOLOGY AND MINERALOGY

MR. CALHOUN

MR. GEE

GEOL. 21—AGRICULTURAL GEOLOGY—Semester 1 (3 and 0) 3 cr.

*Purpose:* In this course the student is shown the relationships existing between geology and practical agricultural problems, especially those in connection with soil formation and adaptation. *Principal Topics:* Soil making minerals and rocks; formation of soils from rocks; the question of the relation of underground water to springs, wells, and artesian wells; drainage problems and soil water are considered. The soil series are taken up with relation to the rocks from which they are derived and the geologic agents which aid in their formation. (*Agricultural Geology*—Emerson.)

MR. CALHOUN

GEOL. 23, 24—GENERAL GEOLOGY—Semesters 1 and 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with geology as applied not only to a thorough enjoyment of nature, but also to its many practical applications. *Principal Topics:* These courses emphasize topographic forms and their origin. The earth is considered first as a member of the solar system, and from this the evolution of the earth through all of its changes to the geography and life of the present day is traced. Special attention is given to the study of topographic and geologic maps. (*Outlines of Geology*—Longwell, Knopf, Flint, Schuchert & Dunbar.)

MR. GEE

GEOL. 33, 34—MINERALOGY—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Gen. Chem. 33.

*Purpose:* The first semester of this course will be the same as that described under Gen. Chem. 33. The purpose is to give the students a comprehensive knowledge of crystallography so that during the second semester they can carry on work in chemical microscopy if they so desire. Geology 34, Mineralogy, will be open to those students who wish to elect descriptive and determinative mineralogy. (Textbook, Kraus, Hunt, and Ramsdell.)

MR. CALHOUN

GEOL. 42—METEOROLOGY—Semester 2 (2 and 0) 2 cr.

*Purpose:* A course designed to give the general principles of meteorology and climatology as applied to farming, aviation, and to those sciences which require a knowledge of such principles. *Principal Topics:* The course concerns itself in detail with those elements which control the weather, such as temperature, pressure, wind, humidity, clouds, and precipitation. The study of weather maps and conclusions to be drawn from them are made an important part of the course. (*Meteorology*—Milham.)

MR. CALHOUN

GEOL. 43—ENGINEERING GEOLOGY—Semester 1 (2 and 0) 2 cr.

*Purpose:* To show the practical application of geology to problems of engineering. *Principal Topics:* Materials from the earth's crust which the engineer must use; structural geology which gives an idea how such material is arranged; dynamic geology which emphasizes both those forces which tear the earth down and those which build it up. Topographic and geologic maps are used extensively in connection with the text. (*Elements of Engineering Geology*—Ries and Watson.)

MR. CALHOUN



## GERMAN

MR. RHYNE

GERMAN 11, 12—BEGINNER'S GERMAN—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To provide the student with a foundation upon which, by subsequent work, he can attain a reading knowledge of German. *Principal Topics:* The essentials of German grammar. Stress is laid on pronunciation, conversation, and drill in the fundamental constructions. Dictation is given throughout the year. In the second semester an elementary reader is used.

MR. RHYNE

GERMAN 21, 22—SECOND-YEAR GERMAN—Semesters 1 and 2 (3 and 0)  
3 cr.

*Purpose:* To help the student to build up a reading knowledge of German, to appreciate some of the beauties of German literature, and to read scientific books. *Principal Topics:* Review of grammar; conversation and dictation continued; easy lectures in German; prose readings from such authors as Baumbach, Freytag, Hauff, Storm, and Wildenbruch.

MR. RHYNE

GERMAN 31, 32—THIRD-YEAR GERMAN—Semesters 1 and 2 (2 and 0)  
2 cr.

A course of rapid reading of literary or scientific prose.

MR. RHYNE

## GOVERNMENT

MR. WARD

MR. GATES

MR. EPTING

MR. CROUCH

\*MR. WALKER

\*\*MR. BREWSTER

Gov. 12—AMERICAN NATIONAL GOVERNMENT—Semester 1 or 2 (2 and 0)  
2 cr.

*Purpose:* To acquaint the student with the system of American Federal Government. *Principal Topics:* The Constitution, Senate, House of Representatives, joint congressional activities, powers of Congress, President, executive departments, independent establishments, Judiciary, relation to the states and territories, citizenship, international relations, political parties.

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\*On leave 1939-1940.

\*\*In place of Mr. Walker on leave.

MR. GATES

MR. EPTING

\*MR. WALKER

\*\*MR. BREWSTER

GOV. 31—AMERICAN GOVERNMENT AND POLITICAL PARTIES—Semester 1 (3 and 0) 3 cr.

Not open to those who have had Government 12.

*Purpose:* To give the student a broad survey of the principles and practices of American government. *Principal Topics:* The Constitution, citizenship and suffrage, political parties, the national executive, the Congress, the national judiciary.

MR. GATES

GOV. 32—STATE AND LOCAL GOVERNMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Government 12 or 31 and permission of the instructor.

*Purpose:* To familiarize the student with the way in which government is carried on by agencies other than the national government. *Principal Topics:* The place of the state in the nation, state and local administration, taxation, economic and social functions, county and municipal government, governmental problems in South Carolina.

MR. EPTING

GOV. 43—INTERNATIONAL RELATIONS—Semesters 1 and 2 (2 and 0) 2 cr.

Open only to Seniors.

*Purpose:* To acquaint the student with current world movements and conditions, so that he may be able to think intelligently on the problems confronting our nation. *Principal Topics:* Economic, political and social problems. (*The Great Powers in World Politics*—Simonds and Emeny.)

MR. CROUCH

GOV. 44—COMPARATIVE GOVERNMENT—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Government 12 and permission of the instructor

*Purpose:* To acquaint the student with a few of the more important governmental systems of the world. *Principal Topics:* Historical development of present-day political institutions; current phases of governmental practice and policy, especially in Great Britain, Germany, Italy, and Russia.

MR. GATES

## HISTORY

MR. HOLMES

MR. EPTING

\*MR. WALKER

\*\*MR. BREWSTER

HISTORY 14—AMERICAN ECONOMIC HISTORY—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose:* To teach the student to think in terms of economic and social forces. *Principal Topics:* Commercial Revolution of Europe of the fifteenth century, colonization, mercantilism, industrial revolution, economic aspects of the several American wars, the westward movement, transportation, rise of labor, decline of laissez faire, recent agricultural development. (*A History of American Economic Life*—Kirkland.)

MR. HOLMES

MR. EPTING

\*MR. WALKER

\*\*MR. BREWSTER

HISTORY 31, 32—HISTORY OF CIVILIZATION—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Open only to Juniors and Seniors.

*Purpose:* To inform the student in a general way of all the outstanding civilizations of the past. *Principal Topics:* Egypt with its monuments and religion; Babylonian law and commerce; Aegean culture, introduction of the horse, iron, and Indo-European literature; Hellenic and Hellenistic cultures: art, literature, philosophy, science; Roman law, expansion, and civilization; the feudal system; medieval art; rise of modern states and capitalism; Age of Louis XIV; Age of Reason; modern science, industry and art. (*A History of World Civilization*—Swain.)

MR. HOLMES

HISTORY 42—THE DEVELOPMENT OF SOUTH CAROLINA—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Permission of the instructor.

*Purpose:* To acquaint the student with the principal social and economic factors that have influenced the growth of the State. *Principal Topics:* Land disposal, systems of labor, racial and cultural groups, agriculture, industry, education, religion, social conflicts.

MR. HOLMES

## HORTICULTURE

MR. MUSSER

MR. NEWMAN

MR. ANDREWS

MR. EDMOND

HORT. 22—GENERAL HORTICULTURE—Semesters 1 and 2 (2 and 3) 3 cr.

\*On leave 1939-1940.

\*\*In place of Mr. Walker on leave.

*Purpose:* To give the student training which will enable him to apply the fundamentals of plant growth to the growth and development of horticultural crops, with particular emphasis on the home orchard, home garden, and home beautification. *Principal Topics:* A review of fundamental plant processes and plant structures. The influence of temperature, light, water, and nutrients on vegetation and reproduction. A study of principal horticultural practices, including seedage, propagation, sites and soils, fertilization, plant growing, cultivating, harvesting, storing, marketing, and pest control. A study of principal horticultural crops, including the fruit crops—their fruiting habits, training, pruning, and spraying; the vegetable crops, including their growth habits and methods for successful production; and the ornamental crops, including their place, selection, and arrangement in the home. (*General Horticulture*—Edmond, Andrews, and Musser.)

MR. MUSSER

MR. EDMOND

HORT. 31—PLANT PROPAGATION AND NURSERY MANAGEMENT—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student a thorough knowledge of the methods of managing a commercial nursery and propagating plants of all kinds. *Principal Topics:* Methods of propagation; time, manner, and material for making cuttings, temperature and media for rooting cuttings of ornamental trees, shrubs and flowering plants; propagating structures, soils, fertilizers, and management methods for commercial nurseries. Practical instruction given in field and greenhouse. (*The Modern Nursery*—Laurie and Chadwick.)

MR. NEWMAN

HORT. 32—ELEMENTARY LANDSCAPE DESIGN—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 31.

*Purpose:* To give the student a practical course in general landscape gardening, a thorough knowledge of plant materials used in landscape designing. *Principal Topics:* Kinds of landscape gardens, principles of landscape art, improvement of home, school grounds, and park areas; mapping, designing, identification, an adaptation of decorative plants to landscape work. (Assigned references.)

MR. NEWMAN

HORT. 33—THE PRODUCTION OF HORTICULTURAL CROPS—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.



*Purpose:* To give the student majoring in horticulture additional training in the fundamentals of plant growth and their application to the growth and development of horticultural crops. *Principal Topics:* A comprehensive study of the photosynthesis, respiration, nutrition, and water relations of horticultural crops; the physiological and biochemical uses of horticultural plant products; and of the influence of the environment on growth and differentiation. (Assigned references.)

MR. EDMOND

HORT. 41—SYSTEMATIC POMOLOGY AND SMALL FRUIT CULTURE—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

#### PART I—SYSTEMATIC POMOLOGY.

*Purpose:* To acquaint students with the many and varied characters of deciduous and citrus fruits, both plant and fruit; to classify and identify varieties. *Principal Topics:* The structure of fruit plants—roots, stems, leaves, flowers, fruit, etc.; physiological characters; methods of work in systematic pomology and of classification; habitat, history, color, form, structure, flavor and use of pome, drupe, bramble and heath fruits, grapes, stawberries, currants and gooseberries, and various citrus fruits; judging and displaying fruits. (*Systematic Pomology*—Hedrick.)

#### PART II—SMALL FRUIT CULTURE.

*Purpose:* To give the student a knowledge of the principles of production and preparation for market of small fruits. *Principal Topics:* Varieties, soils, sites, culture, fertilizers, harvesting, and preparation for marketing of grapes, strawberries, dewberries, blackberries, raspberries, and other small fruits. (*Small Fruits*—Shoemaker.)

MR. MUSSER

\*HORT. 43—THE BREEDING OF HORTICULTURAL CROPS—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To train the student to apply the principles of genetics to the improvement of horticultural crop plants. *Principal Topics:* Genetics and breeding practices; the technique of selection, varietal and species crossing, sterility, and incompatibility, mutations and chimeras; the origin of new forms. (Assigned References.)

MR. EDMOND

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\*Hort. 43 and Hort. 47 are given in alternate years. Hort. 43 will be offered in 1940-1941.

HORT. 45—LANDSCAPE DESIGN—Semester 1 (1 and 3) 2 cr.

*Prerequisite:* Hort. 31.

*Purpose:* To familiarize the student with plant materials used in landscape designing for home grounds, parks, and small estates. *Principal Topics:* Systematic study of trees, shrubs, and herbaceous plants used on landscape designs; practical problems to be worked with the same attention to details as is necessary in actual practice of landscape designing.

MR. NEWMAN

HORT. 46—ADVANCED LANDSCAPE DESIGN—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 31, 32, and 45.

*Purpose:* To prepare the student to engage in Landscape Designing as a profession. *Principal Topics:* Classification of trees, shrubs and flowering plants with special reference to their use in landscape designing; soils, manures and fertilizers; establishing and maintaining lawns on large estates; vines and other ground covers; detail estimates of cost of developing large landscape problems; advanced design. (Assigned references.)

MR. NEWMAN

\*HORT. 47—NUT CULTURE AND SPRAYS AND SPRAYING—Semester 1 (2 and 2) 2 2/3 cr.

#### PART I—NUT CULTURE

*Purpose:* To give the student a knowledge of the principles of production and preparation for market of the principal nut crops. *Principal Topics:* Propagation, varieties, soils, sites, cultural methods, pollination problems, fertilizers, harvesting, and grading of pecans, walnuts, filberts, and almonds. (Assigned references.)

#### PART II—SPRAYS AND SPRAYING.

*Purpose:* To give the students a working knowledge of the properties and application of fungicides and insecticides in the control of pests of horticultural crops. *Principal Topics:* Classes of fungicides and insecticides; their properties, effectiveness, influence on plant functions, costs, and the methods of application. (References.)

MR. ANDREWS

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\*Hort. 43 and 47 are given in alternate years. Hort. 43 will be offered in 1940-1941.

HORT. 52—COMMERCIAL POMOLOGY—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the students a knowledge of the methods of establishing and managing a large fruit orchard. *Principal Topics:* Fruit bud formation, rest period, and water responses of fruit plants; fruit tree soils; fruit setting and self-unfruitfulness of the important fruits; orchard soil management and responses of various fruits to applications of fertilizers; fundamental principles of and response of fruit trees to pruning; effect of climatic differences; freezing of tissues and means of avoiding injury; harvesting, transportation, storage. (*Fundamentals of Fruit Production*—Gardner, Bradford and Hooker; *Orchard and Small Fruits*—Auchter and Knapp.)

MR. MUSSER

HORT. 54—TRUCK CROPS—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Hort. 22.

*Purpose:* To give the student a thorough knowledge of the truck industry with special reference to growing and marketing truck crops along the Atlantic coast. *Principal Topics:* Plant characteristics, varieties, soils, fertilizers, cover crops, water requirements, harvesting and preparation for market of asparagus, beans, cabbage, Irish potatoes, sweet potatoes, cantaloupes, watermelons, tomatoes, and various less important crops. (*Southern Vegetable Crops*—Ware; Assigned References.)

MR. EDMOND

HORT. 56—LANDSCAPE DESIGN—Semester 2 (1 and 3) 2 cr.

*Prerequisite:* Hort. 31, 43.

*Purpose:* To give the student a thorough knowledge of and practical experience in landscape problems of large areas. *Principal Topics:* Civic improvements, mill villages, public buildings, squares, parks, storm water control, water courses, lakes, lawns, drives, and walks; trees and shrubs and their requirements; study of finished problems in Landscape Design, original problems, field work, and drafting.

MR. NEWMAN

HORT. 61-62—SPECIAL PROBLEMS—Semesters 1 and 2 (1 and 0) 1 cr.

*Purpose:* To give experience in interpreting and analyzing reports of recent horticultural investigations. *Principal Topics:* Recent research work on various phases of horticulture, methods of conducting investigations, preparation of report of investigations. (Assigned References from various sources.)

MR. MUSSER AND HORTICULTURE STAFF

## MATHEMATICS

MR. MARTIN

|              |             |                    |             |
|--------------|-------------|--------------------|-------------|
| MR. HUNTER   | MR. SHELDON | MR. BURTON         | MR. EDWARDS |
| *MR. COKER   | MR. BELL    | MR. KIRKWOOD       | MR. KELLY   |
| **MR. KERLEY |             | ***MR. SCARBOROUGH |             |

MATH. 11—PLANE TRIGONOMETRY—Semester 1 or 2 (3 and 0) 3 cr.

*Prerequisite:* Algebra and Plane Geometry.

*Purpose:* To give the student a thorough knowledge of the principles of plane trigonometry together with its various applications to related problems and exercises. *Principal Topics:* Trigonometric functions of an acute angle, reciprocal functions, functions of complementary angles, fundamental relations between the function, functions of any angle; the right triangle; solutions of problems in heights and distances, projections, forces, velocities, and accelerations, isosceles triangles, polygons, and related circles; oblique triangles, laws of sines, cosines, and tangents with their various applications in the solution of triangles; the functions of the sum and difference of two angles, the double angle, and the half angle; inverse functions and trigonometric equations. (*Plane Trigonometry*—Patterson and Hickson.)

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|------------|------------|--------------|-------------|
| MR. HUNTER | MR. BURTON | MR. SHELDON  | MR. EDWARDS |
| MR. BELL   | *MR. COKER | MR. KIRKWOOD | MR. KELLY   |
|            |            |              | MR. MILLER  |

MATH. 12—ANALYTIC GEOMETRY—Semester 1 or 2 (3 and 0) 3 cr.

*Purpose:* To give the student a basic knowledge of the relations between curves and their equations. *Principal Topics:* Cartesian coordinates, curves and curve plotting, the straight line, the circle, polar coordinates, the parabola, the ellipse, the hyperbola. (*Analytic Geometry*—Love.)

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|------------|--------------|--------------------|-------------|
| MR. HUNTER | MR. SHELDON  | MR. BURTON         | MR. EDWARDS |
| MR. BELL   | *MR. COKER   | MR. KIRKWOOD       | MR. KELLY   |
| MR. MILLER | **MR. KERLEY | ***MR. SCARBOROUGH |             |

MATH. 13, 14—COLLEGE ALGEBRA—Semesters 1 and 2 (2 and 0) 2 cr.

*Purpose:* To give the student a knowledge of the fundamental principles of Algebra. *Principal Topics:* Fundamental operations, special products and factoring, fractions, radicals, logarithms, quadratic equations, ratio and proportion, variation, binomial theorem, complex numbers, partial fractions, determinants. (*College Algebra*—Rosenbach and Whitman.)

\*On leave 1939-1940.

\*\*In place of Mr. Coker on leave.

\*\*\*Substitute Instructor.



|            |              |                    |             |
|------------|--------------|--------------------|-------------|
| MR. HUNTER | MR. SHELDON  | MR. BURTON         | MR. EDWARDS |
| *MR. COKER | MR. BELL     | MR. KIRKWOOD       | MR. KELLY   |
| MR. MILLER | **MR. KERLEY | ***MR. SCARBOROUGH |             |

MATH. 15—COLLEGE ALGEBRA—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give the student a knowledge of the fundamental principles of Algebra. *Principal Topics:* Fundamental operations, factoring, fractions, functions and their graphs, linear equations, exponents, radicals, logarithms, quadratic equations, ratio and proportion, determinants. (*College Algebra*—Rosenbach and Whitman.)

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|------------|--------------|--------------------|-------------|
| MR. HUNTER | MR. SHELDON  | MR. BURTON         | MR. EDWARDS |
| *MR. COKER | MR. BELL     | MR. KIRKWOOD       | MR. KELLY   |
| MR. MILLER | **MR. KERLEY | ***MR. SCARBOROUGH |             |

MATH. 19—APPLIED MATHEMATICS—Semester 1 or 2 (3 and 0) 3 cr.

*Purpose:* To equip prospective teachers of agriculture with the mathematical skills needed in solving problems of agriculture as dealt with on the farm and to interpret and understand the mathematical terms in agricultural textbooks, experiment station, U. S. D. A., and U. S. Office of Education bulletins and reports. *Principal Topics:* Areas, volumes, percentages, averages, linear equations in one unknown, ratio and proportion, trigonometry, concrete work, lumber measure, stored volumes of grain, silage, and other farm products, excavations and calculations relating to farm structures. Some attention will be given to the mathematical language for interpreting economic data.

MR. SHELDON

MATH. 21, 22—THE CALCULUS—Semester 1 and 2 (5 and 0) 5 cr.

*Prerequisite:* Math. 11, 12, 13, 14.

*Purpose:* To give the student a knowledge of the Calculus and its applications. *Principal Topics:* Differentiation of the elementary functions, applications of differentiation to rate and maxima and minima problems. Integration of the elementary functions, applications of integration to areas, volumes, and surfaces. (*The Calculus*—Granville, Smith and Longley.)

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|-------------|------------|-------------|------------|
| MR. MARTIN  | MR. HUNTER | MR. SHELDON | MR. BURTON |
| MR. EDWARDS |            | *MR. COKER  |            |

MATH. 23—DIFFERENTIAL CALCULUS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Mathematics 11, 12, 13, 14.

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\*On leave 1939-1940.

\*\*In place of Mr. Coker on leave.

\*\*\*Substitute Instructor.

*Purpose:* To give those students taking the textile course the fundamental principles of differential calculus and some of its important applications. *Principal Topics:* Differentiation of algebraic and transcendental functions, with numerous applications in maxima and minima, curve tracing, and velocity and acceleration.

MR. SHELDON      MR. EDWARDS      MR. COKER      MR. BELL

MATH. 24—INTEGRAL CALCULUS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Mathematics 23.

*Purpose:* To drill the student in fundamental principles and applications of integral calculus. *Principal Topics:* A study of the elementary form of integration, integration of rational fractions, the definite integral, geometric applications, multiple integrals, and practical problems arising in engineering subjects. (*The Calculus*—Granville, Smith, Longley.)

MR. SHELDON      MR. EDWARDS      \*MR. COKER      MR. BELL

MATH. 25, 26—INDUSTRIAL MATHEMATICS—Semesters 1 and 2 (3 and 0) 3 cr.

For education students only.

*Purpose:* To emphasize the practical side of Arithmetic, Geometry, Algebra, and Trigonometry. *Principal Topics:* Stress is to be placed upon the working of a great many problems from carpentry, the machine shop, construction work, surveying, and allied subjects, in order to obtain proficiency in carrying out a mathematical calculation and achieving the correct result. (*Practical Mathematics*—Palmer.)

MATH. 27, 28—THE CALCULUS—Semester 1 (5 and 0) 5 cr.  
Semester 2 (3 and 0) 3 cr.

*Purpose:* To give the student a knowledge of the calculus and its applications. *Principal Topics:* Differentiation and integration of the elementary functions. Applications of differentiation to rates, maxima and minima, and approximations. Applications of integration to area, volume, and surface problems. (*The Calculus*—Granville, Smith, and Longley.)

MR. MARTIN      MR. HUNTER      MR. SHELDON

MATH. 32—ORDINARY DIFFERENTIAL EQUATIONS—Semester 2 (2 and 0) 2 cr.

*Purpose:* To give the student a knowledge of the methods used in the solution of ordinary differential equations. *Principal Topics:* Homogeneous equations, linear equations, equations reducible to the linear form,

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\*On leave 1939-1940.

special type equations, second order equations, nth order equations, applications to mechanics, physics and chemistry.

MR. MARTIN

MR. HUNTER

MR. SHELDON

### MECHANICAL ENGINEERING

MR. EARLE

MR. FERNOW

MR. CURTIS

MR. SAMS

MR. SHENK

MR. FREEMAN

MR. MARSHALL

MR. PHILPOT

MR. DOWNS

MR. BRANCH

MR. CHAPMAN

M. E. 12—FORGE AND FOUNDRY—Semester 1 or 2 (0 and 6) 2 cr.

*Purpose:* To give the student a knowledge of the methods of making iron and steel forgings for use in industry and the methods and practices in the making of ferrous and non-ferrous castings. A study of forge equipment; materials used in forgings; selection of materials; methods of working and treating, inspection and classification of forgings. Part of the time is devoted to the study of tool steel forgings. A study of materials used in castings, the cupola, moulding sands, cores, patterns, the crucible furnace, the cleaning and inspection of castings. Time is also given to the study of the foundry from an industrial standpoint. Lectures and demonstrations accompany the work.

MR. PHILPOT

M. E. 15—WOODWORK—Semester 1 or 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Purpose:* A short course in woodwork consisting of lectures and shop practice for textile students. *Principal Topics:* Hand tools, sharpening tools, planing and squaring to dimensions, construction of common joints, gluing, and clamping.

MR. MARSHALL

M. E. 17—WOODWORK AND PATTERN MAKING—Semester 1 or 2 (0 and 6) 2 cr.

*Purpose:* To give Engineering students a knowledge of the tools and machinery used in woodwork and pattern making. This is accomplished through lectures and shop practice. *Principal Topics:* Hand tools, machine tools on planing and squaring to dimensions, common joints, miscellaneous constructions, gluing and clamping, wood turning and finishing, kinds of wood for various uses, source of supply, determination of types of patterns by the equipment of foundry and machine shop. Allowances and their effect on patterns, tools used, templets, core prints, pattern construction, core box and cores, skeleton patterns. (*Woodwork and Pattern Making—Marshall.*)

MR. MARSHALL

M. E. 21—METALLURGY—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite*: Gen. Chem. 11 and 12 and M. E. 12; *Suggested*: One year of Physics.

*Purpose*: To give the student an elementary knowledge of the metallurgy of Iron and Steel. *Principal Topics*: A study of ores and their sources; fluxes and heating mediums; the operation of the blast furnace; the open hearth, the Bessemer Converter; the crucible furnace; a study of the various alloys of iron, their production, and use. Some time is given to commercial processes of production. (Text to be selected.)

MR. PHILPOT

M. E. 22—MATERIALS OF ENGINEERING—Semester 1 or 2 (2 and 0) 2 cr.

*Purpose*: To give a brief but complete study of the materials used in Engineering and industry. *Principal Topics*: The sources of materials used in industry; a study of wood, concrete, ferrous alloys, non-ferrous materials, brick, tile, and other building materials. This course is designed to help the engineer to select the proper material for any given job. (Text to be selected.)

MR. PHILPOT

M. E. 23, 24—MACHINE SHOP—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite*: Trigonometry, Mechanical Drawing.

*Purpose*: To give the student a practical knowledge of machine shop methods from the standpoint of the industrial engineer. *Principal Topics*: General application of bench tools; design, application, and methods employed with the lathe, drill, shaper, planer, milling machine, and grinder; study of highly specialized machinery in speed production work and study; practice in industrial management.

MR. FREEMAN

M. E. 25—ENGINEERING PROBLEMS—Semester 1 or 2 (0 and 3) 1 cr.

*Prerequisite*: Math. 11, 12, 13, 14.

*Purpose*: To familiarize the student with simple problems of an engineering nature and to review applications of logarithms, trigonometric functions, parabolas, logarithmic plotting, steam tables and use of the slide rule.

MR. SAMS

M. E. 31—MECHANICS (Statics)—Semester 1 (3 and 0) 3 cr.

*Prerequisite*: Math. 21 and 22; Physics 11 and 12, or Physics 21 and 22.



*Purpose:* To give the students additional training in analysis. *Principal Topics:* Analytical methods of solution of statically determinate force systems, with application to engineering; study of center of gravity and moment of inertia of areas. (*Applied Mechanics*—Poorman.)

MR. CURTIS      MR. DOUGHERTY

M. E. 32—MECHANICS (Kinetics)—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 31.

Continuation of Course M. E. 31.

*Principal Topics:* Study of various types of motion, work, energy, and power, with engineering applications. (*Applied Mechanics*—Poorman.)

MR. CURTIS

M. E. 33—MECHANICAL ENGINEERING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22 or 11, 12.

*Purpose:* A general course to familiarize the student with mechanical equipment and its application to the needs of the civil engineer. *Principal Topics:* Study of fuels, combustion, steam, boilers and auxiliaries, steam engines, gas engines and elementary thermodynamics of the steam and gas cycles.

MR. SHENK

M. E. 33a—MECHANICAL LABORATORY—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* Physics 21, 22 or 11, 12.

*Purpose:* Calibration of instruments, tests of fuels, steam engines, and gas engines. *Principal Topics:* Calibration of gauges, study of indicators, tests of coal, lubricating oils, boilers, turbines, steam engines, and gas engines.

MR. SHENK      MR. DOWNS

M. E. 34—MECHANICAL ENGINEERING—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22; Physics 21, 22 or 11, 12.

*Purpose:* A general course to familiarize the student with mechanical equipment and its application to the needs of the textile engineer. *Principal Topics:* Study of fuels, steam boilers, and auxiliaries, steam and gas engines, and elementary thermodynamics of the steam and gas cycles.

MR. SHENK

M. E. 34a—MECHANICAL LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Prerequisite:* Physics 21, 22 or 11, 12.

*Purpose:* Calibration of instruments, tests of fuels, steam engines, and gas engines. *Principal Topics:* Calibration of gauges, study of indicators, tests of coal, lubricating oils, boilers, turbines, steam engines, and gas engines.

MR. SHENK

MR. DOWNS

M. E. 35—POWER PLANTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Math. 21, 22.

*Purpose:* A study of mechanical equipment and its application in central station and industrial uses, stress being laid on the thermodynamic feasibility of its use. *Principal Topics:* Fuels, combustion, steam boilers, boiler room auxiliaries, steam engines, and turbines with their auxiliaries.

MR. EARLE

MR. SAMS

M. E. 35a—MECHANICAL LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Physics 23, 24.

*Purpose:* To familiarize the student with the instruments used and method of making friction tests on engines. *Principal Topics:* Calibration of gauges, thermometers, study of indicators, analyses of coal gas, lubricating oils, and simple engine tests.

MR. SHENK

MR. DOWNS

M. E. 36—THERMODYNAMICS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 35.

*Purpose:* A thorough study of the thermodynamics of steam, air heat, and refrigeration cycles. *Principal Topics:* Thermodynamic principles and definitions, properties and processes for gases, cycles of heat engines using gas, properties and thermodynamic processes of vapors, vapor cycles, flow of fluids, thermodynamics of refrigeration and compressed air cycles.

MR. EARLE

MR. SAMS

M. E. 36a—MECHANICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Physics 21, 22.

*Purpose:* A continuation of M. E. 35a. *Principal Topics:* Friction tests and economy tests of steam and gas engines.

MR. SHENK

MR. DOWNS

M. E. 36b—MECHANICAL LABORATORY—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Physics 21, 22.

*Purpose:* To familiarize the student with mechanical equipment and the methods used in testing it. *Principal Topics:* Calibration of instruments, analyses of coal and lubricating oils, simple tests on steam and gas engines.

MR. SHENK

MR. DOWNS

M. E. 38—INDUSTRIAL ENGINEERING—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 23, 24.

*Purpose:* To give the student a practical knowledge of the organization, management, and operation of the industrial plant. *Principal Topics:* Basic principles, design of the plant, organizing the company. Executive control, operating methods.

MR. FREEMAN

M. E. 41—POWER PLANTS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36, 35a, 36a.

*Purpose:* To study the engineering of power plants. *Principal Topics:* The design and operating characteristics of power plants and of the individual units which make up the power plant, including the economics; steam, hydro, and Diesel plants.

MR. SHENK

M. E. 41a—POWER PLANT LABORATORY—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* To put into practice the theory covered in M. E. 41. *Principal Topics:* Tests of turbines, engines, pumps, compressors, boilers, blowers, etc., (with formal written reports).

MR. SAMS

M. E. 42—HYDRAULICS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 32.

*Purpose:* To familiarize students with forces exerted by water and the flow of water. *Principal Topics:* Theoretical study of pressure measurement, hydrostatic pressures, discharge measuring devices, flow in pipes and open channels; brief consideration of hydrodynamics, hydraulic turbines, and hydraulic power plants. (*Hydraulics*—Schoder and Dawson.)

MR. CURTIS

M. E. 42a—HYDRAULIC LABORATORY—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

To accompany M. E. 42.

*Purpose:* Experimental illustration by students of certain devices and principles studied in M. E. 42; also a limited number of exercises on testing of structural materials.

MR. CURTIS

M. E. 42.5—HYDRAULICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 32.

An abbreviated form of M. E. 42 without laboratory.

MR. CURTIS

M. E. 43—POWER PLANTS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 35, 36.

The same as M. E. 41, but more complete and detailed. (*Power Plant Engineering*—F. T. Morse.)

MR. FERNOW

M. E. 43a—POWER PLANT LABORATORY—Semester 1 (0 and 4)  $1\frac{1}{3}$  cr.

*Prerequisite:* M. E. 35a, 36a.

An amplification of M. E. 41a. (No text.)

MR. FERNOW

M. E. 44—POWER PLANTS—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. E. 43.

A continuation of M. E. 43. (*Power Plant Engineering*—F. T. Morse.)

MR. FERNOW

M. E. 44a—POWER PLANT LABORATORY—Semester 2 (0 and 4)  $1\frac{1}{3}$  cr.

A continuation of M. E. 43a. (No text.)

MR. FERNOW

M. E. 45—GAS ENGINES—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* A study of the thermodynamics, construction, and design of internal combustion engines. *Principal Topics:* Theoretical cycles, engine performance, two and four stroke cycles, fuels, combustion, cool-



ing, temperature effects, flywheels, governors, vibration and balancing, engine design.

MR. SHENK

M. E. 45a—GAS ENGINE DESIGN—Semester 1 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26, M. E. 35, 36.

*Purpose:* The design and layout of an internal combustion engine.

*Principal Topics:* To design and make an assembly drawing of an internal combustion engine.

MR. FERNOW

M. E. 46—STEAM TURBINES—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35, 36.

*Purpose:* A study of the principles of operation, construction, and design of the steam turbine. *Principal Topics:* Nozzle design, blade design, staging, governing, economy, etc.

MR. SAMS

M. E. 46a—STEAM TURBINE DESIGN—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* Drawing 26; M. E. 35, 36. Registration in M. E. 46.

*Purpose:* To design and lay out various parts of the steam turbine.

*Principal Topics:* Design of nozzle and blading, including assembly and general layout of turbine.

M. E. 47—HEATING AND VENTILATION—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35.

*Purpose:* To teach the rudiments of central heating system design and construction. *Principal Topics:* Optimum air conditions, heat loss determination, warm air systems, hot water systems, steam vapor, and vacuum systems; fuels and fuel storage.

MR. SHENK

M. E. 47a—HEATING AND VENTILATION DESIGN—Semester 1 (0 and 3) 1 cr.

*Purpose:* To give practical application to the principles of M. E. 47.

*Principal Topics:* The design of three heating systems—one for a residence, one for a school building, and another for an industrial plant.

MR. SHENK

M. E. 48—HEATING AND VENTILATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 47.

*Purpose:* To teach the rudiments of air conditioning. *Principal Topics:* Physiological effects of air conditioning requirements, ventilation equipment, ventilation systems, application of automatic control; industrial exhaust systems.

MR. SHENK

M. E. 48a—HEATING AND VENTILATION DESIGN—Semester 2 (0 and 3) 1 cr.

*Purpose:* To provide practical application of the principles of air conditioning systems. *Principal Topics:* The design of three air conditioning systems: one commercial, one industrial, and one for a hospital.

MR. SHENK

M. E. 49—MECHANICS OF MATERIALS—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* M. E. 31.

*Purpose:* To acquaint students with certain physical constants and stresses in structural members and machine parts. *Principal Topics:* Deformation and stress; torsion; riveted joints; supports, flexure and deflection of a beam; combined stress in short blocks; columns. (*Strength of Materials*—Boyd.)

MR. CURTIS

MR. DOUGHERTY

M. E. 50—AERODYNAMICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 31 and approval of instructor.

*Purpose:* To study the forces acting on a plane in flight. *Principal Topics:* History of aviation, aerodynamic theory as applied to airplane design, including calculations of performance and the study of stability and control.

M. E. 51—REFRIGERATION—Semester 1 or 2 (2 and 0) 2 cr.

*Prerequisite:* M. E. 35.

*Purpose:* To teach the application of thermodynamic principles to practical problems in refrigeration. *Principal Topics:* Thermodynamics of refrigeration, heat transfer through building materials and insulation, refrigeration requirements in ice making, meat packing, and in creamery, cold storage and household refrigeration machinery and systems; some economic factors of refrigeration.

MR. SHENK

## MILITARY SCIENCE

LIEUTENANT COLONEL, H. M. POOL

MAJOR G. D. HUFFORD  
MAJOR R. F. WALTHOUR  
MAJOR A. H. DUMAS  
MAJOR D. E. BARNETT  
MAJOR J. V. SIMS

SERGEANT H. J. WILKINSON  
SERGEANT H. S. HEATH  
SERGEANT K. R. HELTON  
SERGEANT O. A. DEMOTT

M. S. 11, 12—MILITARY SCIENCE AND TACTICS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To instill discipline and the habit of prompt obedience, and to develop leadership ability, while providing basic military instruction. *Principal Topics:* The course includes study of National Defense Act and ROTC, obligations of citizenship, military history and policy, current international situations, military discipline, courtesy and customs of the service, military sanitation and first aid, military organization, especially of the infantry, the theory and practice of military map reading and rifle marksmanship, instruction in command and leadership, guard duty and ceremonies. Physical drill is also given. (*National Service R. O. T. C. Manual*, Volume 1.)

MAJOR DUMAS      MAJOR BARNETT      MAJOR SIMS

M. S. 21, 22—MILITARY SCIENCE AND TACTICS—Semesters 1 and 2 (0 and 3) 1 cr.

*Prerequisite:* M. S. 12.

*Purpose:* Continuation of disciplinary training, additional stress on leadership, and basic instruction in infantry weapons and tactics of the smaller infantry units. *Principal Topics:* This course covers in theory and practice the automatic rifle, characteristics of infantry weapons, scouting and patrolling, musketry and combat principles of the rifle squad and section; additional military history, command and leadership as would apply to infantry corporals and squad leaders, physical training and instruction in guard duty and ceremonies. (*National Service R. O. T. C. Manual*, Volume II.)

MAJOR HUFFORD

M. S. 31, 32—MILITARY SCIENCE—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr.

*Purpose:* Training in Discipline and Leadership; physical development and correction of defects in posture. *Principal Topics:* Drill (close and extended order—command and leadership. Juniors who are not

members of the ROTC receive practical instruction in Military Science and Tactics. Members of the ROTC also take M. S. 33 and 34.

|                    |               |                 |
|--------------------|---------------|-----------------|
| Lt. Col. Pool      | Major Hufford | Major Walthour  |
| Major Sims         | Major Dumas   | Major Barnett   |
| Sergeant Wilkinson |               | Sergeant Helton |
| Sergeant Heath     |               | Sergeant DeMott |

M. S. 33, 34—MILITARY SCIENCE AND TACTICS—Semester 1 (2 and 0)  
2 cr. Semester 2 (3 and 0) 3 cr. ✓

*Prerequisite:* M. S. 22.

*Purpose:* Theoretical and practical training in weapons and the principles of their combined action, disciplinary and combat training, leadership, and training methods, to qualify as instructors. *Principal Topics:* This course consists of practical and theoretical training in aerial photograph reading; combat principles of rifle, machine gun and howitzer platoons; pistol and pistol marksmanship; rifle and rifle marksmanship; command and leadership as would apply to infantry sergeants, first sergeants and sergeant majors; instruction in guard duty, physical drill and ceremonies, and in the duties of the senior non-commissioned officers. (*National Service R. O. T. C. Manual*, Volume III.)

MAJOR WALTHOUR MAJOR DUMAS

M. S. 41, 42—MILITARY SCIENCE—Semester 1 (0 and 3) 1 cr. Semester 2 (0 and 2) 2/3 cr. ✓

*Purpose:* Training in discipline and leadership as applies to the junior officer; physical development and correction of defects of posture. *Principal Topics:* Drill (close and extended order), command and leadership. Seniors who are not members of the ROTC receive practical instruction in Military Science and Tactics. Members of the ROTC take M. S. 43 and 44.

|                    |               |                 |
|--------------------|---------------|-----------------|
| Lt. Col. Pool      | Major Hufford | Major Walthour  |
| Major Sims         | Major Dumas   | Major Barnett   |
| Sergeant Wilkinson |               | Sergeant Helton |
| Sergeant Heath     |               | Sergeant DeMott |

M. S. 43, 44—MILITARY SCIENCE AND TACTICS—Semester 1 (2 and 0)  
2 cr. Semester 2 (3 and 0) 3 cr.

*Prerequisite:* M. S. 34.

*Purpose:* Instruction in command, leadership, and combat principles; development of initiative and responsibility; administration and training methods; qualification as Junior Officers of the Infantry arm. *Principal Topics:* This course comprises a study of Military History and Policy,



Military Law, company administration and supply, Officers Reserve Regulations; tanks, anti-aircraft defense, defense against chemical warfare; combat intelligence, Infantry Signal Communications; Combat Training; principles of rifle, machine gun, and howitzer platoons and companies; command and leadership as would apply to infantry lieutenants. (*National Service R. O. T. C. Manual*, Volume IV.)

LT. COLONEL POOL

MAJOR BARNETT

### PHYSICS

MR. GODFREY

MR. BROWN

MR. REED

MR. HENDRICKS

MR. HUFF

MR. ORENS

MR. VANDIVERE

PHYSICS 11, 12—GENERAL PHYSICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Algebra, through quadratics; Plane Geometry.

*Purpose:* To give the student a knowledge of the fundamental principles of physics and to apply these principles to numerous problems. *Principal Topics:* The laws of motion of solids and fluids, heat, thermometry, the principles of electricity, magnetism, sound, and light.

MR. GODFREY MR. HENDRICKS MR. HUFF MR. ORENS MR. VANDIVERE

PHYSICS 15, 16—GENERAL PHYSICS LABORATORY—Semesters 1 and 2 (0 and 2) 2/3 cr.

Concurrent with Physics 11, 12.

*Purpose:* A study of the individual experiments generally given in a first year course in College Physics.

PHYSICS 17, 18—PREMEDICAL PHYSICS LABORATORY—Semesters 1 and 2 (0 and 3) 1 cr.

Concurrent with Physics 11, 12.

*Purpose:* A similar course to Physics 15, 16 but requiring more time in the laboratory.

PHYSICS 21, 22—GENERAL PHYSICS—Semesters 1 and 2 (4 and 0) 4 cr.

*Prerequisite:* Mathematics 11 and 12.

*Purpose:* To give the student a knowledge of the fundamental theory of physics and the application of the principles to problems in engineering. *Principal Topics:* Mechanics, dynamics, thermometry, heat, magnetism, electricity, sound, and light.

MR. BROWN

MR. HENDRICKS

MR. HUFF

MR. ORENS

PHYSICS 23, 24—LABORATORY PHYSICS—Semesters 1 and 2 (0 and 3)  
1 cr.

This course must be taken with Physics 21, 22.

*Purpose:* To study the application of the theory in physical phenomena, acquire skill in observation and manipulation. *Principal Topics:* Measurement of several physical constants in mechanics, heat, and light; study of electrical measurements and instruments.

MR. BROWN      MR. HUFF      MR. HENDRICKS      MR. ORENS

PHYSICS 27—GENERAL PHYSICS—Semester 2 (3 and 2) 3 2/3 cr.

*Purpose:* To study the fundamental principles of Physics as applied to problems in agriculture. *Principal Topics:* Work, power, machines, efficiency, osmosis, surface tension, heat and heat engines, magnetism, electricity, and light.

MR. REED      MR. ORENS      MR. VANDIVERE

PHYSICS 29—GENERAL PHYSICS—Semester 1 (3 and 2) 3 2/3 cr.

*Purpose:* A short course for students of agriculture with especial reference to the applications of physics. *Principal Topics:* Force, acceleration, power, machines, heat, light, sound, magnetism, and electricity.

MR. ORENS      MR. REED

PHYSICS 30—PHYSICS LABORATORY—Semester 2 (0 and 2) 2/3 cr.

*Purpose:* A continuation of laboratory work of the first semester.

MR. REED      MR. VANDIVERE

PHYSICS 31, 32—MODERN PHYSICS—Semesters 1 and 2 (3 and 0) 3 cr.

*Prerequisite:* Physics 21, 22; *Suggested:* Mathematics 21, 22.

*Purpose:* To give the student a general knowledge of the more recent developments in physics and to familiarize him with the modern methods of investigation. *Principal Topics:* Kinetic theory of gases, electron theory, X-rays, radio activity, atomic structure, theory of quanta, cosmic rays, geophysics, astrophysics, radio, and television. (*Modern Physics—Jauncey.*)

MR. HUFF

PHYSICS 33—DESCRIPTIVE ASTRONOMY—Semester 1 or 2 (2 and 0)  
2 cr.

*Prerequisite:* General Physics.

*Purpose:* To give a general knowledge of the facts of astronomy and to study the methods of determining latitude and longitude. *Principal*

*Topics:* Coordinate systems and apparent motions, the planets, the sun and moon, properties of the stars. (*Introduction to Astronomy*—Baker.)

MR. GODFREY

PHYSICS 34—MAGNETISM AND ELECTRICITY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Physics 11 and 12.

*Purpose:* A course primarily for students in Agricultural Engineering. *Principal Topics:* The electric and magnetic field, potential, transformers, properties of transmission lines, storage batteries, properties of vacuum tubes.

MR. REED

PHYSICS 35—MECHANICS AND PROPERTIES OF MATTER—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* A further study of the mechanical properties of matter. *Principal Topics:* The motion of particles and of rigid bodies, gyroscopes, elasticity, surface tension, the flow of fluids, gravitation.

MR. HUFF

PHYSICS 36—HEAT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To give the student a thorough knowledge of the fundamental principles of heat measurements. Emphasis is placed on chemical applications. *Principal Topics:* Thermometry, calorimetry, change of state, kinetic theory of gases, elements of thermodynamics.

MR. HENDRICKS

PHYSICS 37—SOUND AND LIGHT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics.

*Purpose:* To study the laws governing the transmission of sound and light. Emphasis is placed on architectural applications. *Principal Topics:* Wave motion; velocity of sound in air and other media; sound in rooms; laws of optics, mirrors, prisms, and lenses; wave nature of light; polarization.

MR. BROWN

PHYSICS 38—LOGIC AND SCIENTIFIC METHOD—Semester 2 (2 and 0) 2 cr.

*Purpose:* To study the principles of reasoning as formulated by Logic and to investigate the application of these principles to scientific investigation as an aid in understanding the methods of the sciences in theoretical and laboratory procedure.

MR. ORENS

PHYSICS 39—INTRODUCTION TO THE PHILOSOPHY OF SCIENCE—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* General Physics; Chemistry or Biology.

*Purpose:* To analyze the meaning of Science as a method of human intelligence and to study the solutions offered to the problems of philosophy by the special sciences. Emphasis is placed upon the determination of the place of the sciences in relation to other human institutions and the evaluation of the structure of scientific method as a standard for social movements.

MR. ORENS

### POULTRY HUSBANDRY

MR. MORGAN

P. H. 32—FARM AND COMMERCIAL POULTRY PRODUCTION—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To study the fundamental principles of poultry production and the factors necessary for profitable flock management as a farm enterprise and a commercial business. *Principal Topics:* The nature and uses of poultry products, scope of the industry and agencies involved; classification of poultry; structure of fowl; fundamentals of flock improvement, culling and judging; incubation, brooding, feeding principles and practices; poultry house construction; disease control and sanitation, and economic aspects of poultry production. (*Poultry Husbandry*—Jull.)

MR. MORGAN

P. H. 41—POULTRY JUDGING AND BREEDING—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Poultry Husbandry 32 and Genetics.

*Purpose:* To give the fundamental principles and practices in judging poultry for production and show, to study the principles of poultry breeding. *Principal Topics:* History and development of culling and judging for production bases of poultry classification and standard judging inheritance in poultry and improvement of birds through the application of genetic laws. (*Poultry Breeding*—Jull.)

MR. MORGAN



P. H. 42—POULTRY PRODUCTION AND MANAGEMENT—Semester 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Poultry Husbandry 32.

*Purpose:* To give detailed study to incubation and brooding principles and practices, to study the effects of various feeds and rations, study of management practices. *Principal Topics:* Temperature, humidity, and ventilation in relation to incubation; incubator operation; brooding and rearing methods; feeds and rations for baby chicks; growing stock, breeding stock, and laying hens; effects of feeds and rations on the character and quality of poultry products; poultry farm plan and management. (*Research Bulletins and Scientific Literature.*)

MR. MORGAN

### PSYCHOLOGY

MR. ALEXANDER

PSYCHOLOGY 35, 36—PSYCHOLOGY FOR TEACHERS—Semesters 1 and 2 (2 and 2) 3 cr. each semester.

*Prerequisite:* Junior standing.

*Purpose:* To acquaint students of education and others with some fundamental characteristics of human behavior. *Principal Topics:* Physiological bases of behavior, mental growth, the emotions and their expression, the learning process, individual differences and their measurement, personality, problem children, abnormal behavior. (*Introductory Psychology for Students of Education*—Conklin & Freeman; *Personality, Its Development and Hygiene*—Richmond.)

MR. ALEXANDER

PSYCHOLOGY 46—ABNORMAL BEHAVIOR—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Psychology 35.

*Purpose:* To develop a general knowledge of abnormal behavior. *Principal Topics:* Mental defect, the psychoses and psychoneuroses, psychopathic personalities.

MR. ALEXANDER

PSYCHOLOGY 47—SOCIAL PSYCHOLOGY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Psychology 35.

*Purpose:* To study the social behavior of the individual. *Principal Topics:* The development of personality, social stimulation, crowd behavior, pro-social, and anti-social conduct.

MR. ALEXANDER

## RELIGION\*

MR. CROUCH

MR. CLYBURN

MR. GOODE

RELIGION 21, 22—OLD TESTAMENT—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Sophomores. Others admitted by permission.

*Purpose:* To introduce the student to the Old Testament, its history, its inspiration, and interpretation, as revealed in a study of the prophets.

*Principal Topics:* The prophets of the Old Testament are studied from the standpoint of origin, literary form and content in their historical setting. The text of the Bible itself is studied carefully for its religious and ethical teachings. (*The Prophets of Israel*—Harrell.)

MR. CLYBURN

RELIGION 23, 24—LIFE OF CHRIST—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Sophomores. Others admitted by permission.

*Purpose:* To acquaint the students with the facts in the life of Christ in the order of their occurrence. *Principal Topics:* Historical study of the Gospels: their parallelism, the similarity and differences in the four narratives, brief glance at synoptic criticism, authorship and historical value of the Gospel of John, the measure of the importance and influence of facts studied, and a brief analysis of the more important of Christ's discourses. (*A Harmony of the Gospels*—Robertson.)

MR. GOODE

RELIGION 31, 32—NEW TESTAMENT OUTLINE—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Juniors. Others admitted by permission.

*Purpose:* To study the beginning and the spread of Christianity during the New Testament period. *Principal Topics:* Conditions in the Roman world at the beginning of the Christian era; those factors which later aided in the spread of the Gospel; a study of the life and works of Jesus Christ, as the Founder of Christianity, according to Matthew's Gospel; the spread of the Gospel as contained in the Acts of the Apostles and the Epistles.

MR. CROUCH

RELIGION 41, 42—ETHICS IN RELIGION—Semesters 1 and 2 (2 and 0) 2 cr.

Free elective for Seniors. Others admitted by permission.

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\*This work is not financed by the College; it is offered as free elective.

*Purpose:* To give a general knowledge of the history and development of religious and moral ideals. *Principal Topics:* The nature and scope of conduct, the relationship of man's conduct to his religious loyalties, the inseparable connection between religious and moral ideals. The historical development: Pre-Christian, Greek, Roman, Hebrew; the ethics of Jesus; further development of ethical ideals in the life of the church, modern theories of life.

## SOCIOLOGY

MR. ALEXANDER

MR. BURTNER

SOCIOLOGY 31—ELEMENTARY SOCIOLOGY—Semester 1 or 2 (2 and 0)  
2 cr.

*Prerequisite:* Junior standing.

*Purpose:* To give an introduction to sociology and contemporary social problems. *Principal Topics:* Group behavior, the family, population problems, race relations, dependency, crime. (*Introduction to Sociology*—Young.)

MR. ALEXANDER

MR. BURTNER

SOCIOLOGY 41—CRIMINOLOGY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31.

*Purpose:* To introduce the student to the principal problems of crime and its treatment. *Principal Topics:* The nature and sources of crime, the administration of criminal justice, systems of penology.

MR. ALEXANDER

SOCIOLOGY 42—THE FAMILY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

*Purpose:* To assist the student in developing perspective concerning the problems of marriage and family life. *Principal Topics:* History of the family, social problems of the family, conservation of the family, sources of failure and success in marriage.

MR. ALEXANDER

SOCIOLOGY 44—ADVANCED SOCIOLOGY—Semester 2 (3 and 0) 3 cr.

*Prerequisite:* Sociology 31 and permission of the instructor.

The purpose and topic of this course will be adjusted to the interests of the class and will vary from year to year.

MR. ALEXANDER

## TEXTILE CHEMISTRY AND DYEING

MR. LINDSAY

MR. HUCKABEE

MR. HICKS

T. C. 31 and 32—TEXTILE CHEMISTRY—Semesters 1 and 2 (2 and 2)  
2 2/3 cr.

*Prerequisite:* Chemistry 12.

*Purpose:* This course is designed to give the student the general knowledge of the subject that is essential to the management of any modern textile plant. *Principal Topics:* A general introduction into the theory of textile chemistry. Particular attention is given to the textile fibers, dyestuffs, and organic compounds used in the textile and related industries. (*Introduction to Organic Chemistry*—Lowy and Harrow; *T. C. Mimeograph Notes*.)

MR. HUCKABEE

MR. HICKS

T. C. 33 and 34—TECHNICAL WRITING—Semesters 1 and 2 (1 and 0)  
1 cr.

*Purpose:* A course designed to familiarize the student with the technical literature. *Principal Topics:* Patents, particularly in the field of chemistry as applied to textiles, dyes, dyeing, finishing, rayon, and related subjects; literature searches; abstracting of technical literature and patents; report writing; technical nomenclature, etc.

MR. LINDSAY

T. C. 35 and 38—TEXTILE CHEMISTRY—Semesters 1 and 2 (4 and 3)  
5 cr.

*Prerequisite:* Chemistry 12, 23 and 24.

*Purpose:* This course is designed particularly for textile chemists in that it covers the theories of formation and chemical behavior of the products used in bleaching, dyeing, and finishing. *Principal Topics:* A systematic and thorough course emphasizing especially the more complex compounds used in the textile industry such as carbohydrates (cellulose and starches); proteins (silk and wool); azo; anthraquinone and other similar compounds (dyestuffs); enzymes and ferments (desizing products).

MR. HUCKABEE

T. C. 39 and 40—DYEING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Purpose:* A laboratory course in dyeing with occasional lectures, intended primarily for students specializing in Weaving and Design or Yarn Manufacture. *Principal Topics:* The methods of bleaching and dyeing the different types of fibers are taught through laboratory experiments.



Color-matching and evaluation of dyestuffs are considered briefly. (T. C. *Mimeograph Notes*.)

MR. LINDSAY

T. C. 41 and 42—TEXTILE CHEMISTRY AND DYEING—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Prerequisite:* Textile Chemistry 32, 38.

*Purpose:* This course is designed to give Textile Engineers a general knowledge of the subject. *Principal Topics:* A general study of the chemistry of the textile fibers, dyestuffs and their application, detergents and scouring, bleaching, sizing preparation and its application, desizing, mercerizing, finishing, etc. While covering all of the fibers, particular attention is given to cotton. (*Dyeing with Coal Tar Dyestuffs*—Whittaker; T. C. *Mimeograph Notes*.)

MR. LINDSAY      MR. HICKS

T. C. 41.5 and 42.5—TEXTILE CHEMISTRY AND DYEING—Semesters 1 and 2 (4 and 4) 5 1/3 cr.

*Prerequisite:* Textile Chemistry 38 or Chemistry 36.

*Purpose:* An advanced course in the subject for those desiring to become textile chemists or dyers. *Principal Topics:* This course comprises a full and complete study of the textile fibers, the action of the various reagents upon them, and the various processes through which they pass in the different stages of textile manufacture. Application of dyes to the different classes of textile fibers is fully covered in the laboratory by the usual dyepot experiments, and also by larger scale dyeings. (*Dyeing with Coal Tar Dyestuffs*—Whittaker; *The Application of Dyestuffs*—Matthews; T. C. *Mimeograph Notes*.)

MR. LINDSAY

T. C. 43—CELLULOSE CHEMISTRY—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* Textile Chemistry 35.

*Purpose:* To give the student a thorough knowledge of the latest theories regarding the constitution of our most common and important textile fiber. *Principal Topics:* A study of the chemistry of cellulose based upon the latest research. Particular attention is paid to the preparation of wood pulps for the manufacture of rayon and paper. (*Chemistry of Cellulose and Wood*—Schorger.)

MR. LINDSAY

T. C. 45 and 46—ANALYSIS OF TEXTILE MATERIALS—Semesters 1 and 2 (1 and 3) 2 cr.

*Prerequisite:* Chemistry 24 and Textile Chemistry 38.

*Purpose:* To prepare the student to make analyses pertaining to the materials used in the textile and related industries. *Principal Topics:* The technical analysis of the various chemicals and materials used in the textile industry, including yarns and fabrics, water, soap, sizes, finishes, oils, etc., and hydrogen ion determinations by the colorimetric and potentiometric methods. (*Technical Methods of Analysis*—Griffin.)

MR. HICKS

T. C. 47 or 46.5—MICROSCOPY OF TEXTILE MATERIALS AND CHEMICALS—Semester 1 or 2 (1 and 1) 1 1/3 cr.

*Purpose:* This course is especially planned to enable the student to utilize this valuable means of investigation in the textile and related industries. *Principal Topics:* The preparation of the various materials used in the textile industry for microscopic examination, photo-micrography, micrometry, etc. (*Textiles and the Microscope*—Schwarz; *T. C. Mimeograph Notes*.)

MR. HICKS

MR. HUCKABEE

T. C. 48—SYNTHETIC FIBER CHEMISTRY—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Cellulose Chemistry.

*Purpose:* To equip the student with the knowledge essential to the undertaking of the work in the synthetic fiber industry. *Principal Topics:* A study of the chemistry and mechanics involved in the manufacture of the various synthetic fibers; the chemical, physical and textile properties of the various products, etc. (*Artificial Silk*—Reinthal and Rowe; *T. C. Mimeograph Notes*.)

MR. LINDSAY

T. C. 50 and 51—THESIS—Semesters 1 and 2 (0 and 3) 1 cr.

*Purpose:* To determine the ability of the student to initiate and satisfactorily complete an advanced problem generally related to some work he wishes to pursue after graduation. *Principal Topics:* An investigation of an assigned problem relating to textile chemistry, dyes or dyeing, including the preparation of a written report of this work. When the student has already decided upon some work which he will follow after graduation, an effort is made to assign the investigation to this or a closely related subject.

MR. LINDSAY

*Division Rooms and Equipment.*—All work in textile chemistry and dyeing is conducted in the class room laboratory and dye-house, both especially provided for this purpose.

Besides the usual dyeing laboratory equipment, the dye house contains a hydroextractor, Franklin process and Columbus package dyeing machines (one of which is also suitable for bleaching purposes), a Hussong skein dyeing machine, a jigger, a printing machine, a Permutit water softening system, fadeometer, spectroscope, potentiometric and colorimetric hydrogen ion concentration determination equipment, special rubber-lined rayon dyeing equipment, spray printing equipment, launder-o-meter, Rodney Hunt kier; Rodney Hunt piece goods dyeing machine; monel metal tanks; Strickland monel metal hosiery dyeing machine; Philadelphia Metal Drying Forms for hosiery, etc.

### VETERINARY SCIENCE

MR. FEELEY

VET. SCI. 41—ANATOMY AND PHYSIOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* To give agricultural students a general knowledge of anatomy and physiology of farm animals. *Principal Topics:* Physiology of digestion, chemical and physical processes of digestion and absorption, common diseases, farm sanitation, and first aid treatment. (*Veterinary Science*—Hadley.)

MR. FEELEY

VET. SCI. 42—DISEASES OF ANIMALS—Semester 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give agricultural students instruction in the recognition, causes, and treatment of the diseases of farm animals. *Principal Topics:* The principles of etiology, pathology, diagnosis, symptoms, and treatment of infectious and non-infectious diseases.

MR. FEELEY

### VOCATIONAL EDUCATION

MR. WASHINGTON

|              |               |              |            |
|--------------|---------------|--------------|------------|
| MR. CRANDALL | MR. MONROE    | MR. BOWEN    | MR. BOOKER |
| MR. TATE     | MR. STRIBLING | MR. JOHNSON  | MR. BROCK  |
| MR. WHITE    | MR. KIRKLEY   | MR. KIRCHNER |            |
|              | MR. ALEXANDER |              |            |

VOC. ED. 11—ORIENTATION—Semester 1 (1 and 0) 1 cr.

*Purpose:* To aid the freshman in adjusting himself to the College environment and his course of study.

MR. WASHINGTON    MR. CRANDALL    MR. BOOKER    MR. TATE

## VOC. ED. 21—INTRODUCTION TO EDUCATION—Semester 1 (2 and 0) 2 cr.

*Purpose:* To develop a broad concept of education and a comprehensive view of the scope and opportunities in teaching, to set up desirable objectives for education and to develop a desire for professional growth. *Principal Topics:* Scope, meaning, and significance of education, more significant aspects of teaching, teaching and learning principles, efficient study procedure, professional education's contributions to the successful work of the teacher, teacher personality traits, individual differences and teaching, outcomes of education, status of teaching profession, major problems of education.

MR. BROCK

## VOC. ED. 22—INTRODUCTION TO VOCATIONAL EDUCATION—Semester 2 (1 and 0) 1 cr.

*Purpose:* To introduce the student to the field of education as a whole and to develop a background for further educational training. *Principal Topics:* The place of vocational education in the educational system, the subject-matter fields related to the vocation for which the student is planning to become a teacher, the place of the teacher in the community.

MR. CRANDALL      MR. BROCK

## VOC. ED. 28—OBSERVATION OF INDUSTRIAL TEACHING—Semester 2 (0 and 3) 1 cr.

*Purpose:* To give the student a practical acquaintance with the duties of the industrial arts teacher.

MR. TATE      MR. BROCK

## VOC. ED. 30—EDUCATIONAL PSYCHOLOGY—Semester 2 (3 and 0) 3 cr.

*Purpose:* To train students to better meet the problems encountered in schools. *Principal Topics:* The learning process, individual differences as affecting educational and vocational performances, the project method of teaching, securing and maintaining interest, discipline, program planning, selecting teaching units, job analysis, developing lesson plans, grading, relation of the teacher to local school authorities, supervisors, and other school officials. The psychology applied to conference leading, adult teaching, and the interview, with special emphasis on vocational implications.

MR. STRIBLING

## VOC. ED. 31—INTRODUCTION TO AGRICULTURAL EDUCATION—Semester 1 (1 and 6) 3 cr.

*Purpose:* To familiarize students with the work of teachers of agriculture in local communities. *Principal Topics:* Students observe and



report on the work of all-day, part-time, evening and day unit classes, community and promotional work, equipment and general organization of a program in agricultural education for a local community. Each trainee develops several units of teaching content and instructs classes in vocational agriculture. Students spend two afternoons each week in the practice department.

MR. CRANDALL MR. MONROE MR. STRIBLING MR. JOHNSON MR. BOWEN

VOC. ED. 31.6, 32.6—SPECIAL METHODS IN INDUSTRIAL ARTS—Semesters 1 and 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student fundamental skills, knowledges, and shop content in woodwork, to give the special technique and method of approach in teaching shop subjects in high schools. *Principal Topics:* Project construction, finishing, construction, and care of shop tools and equipment, materials, characteristics of woods, fasteners, finishing materials, glues, the shop budget. These topics are taken up from the standpoint of the most progressive methods of shop teaching in industrial arts.

MR. MARSHALL

VOC. ED. 32—ORGANIZATION OF COURSES OF STUDY—Semester 2 (3 and 0) 3 cr.

*Purpose:* To have students build industrial courses based upon specific analyses of the jobs to be taught, and to have students use these courses in teaching. *Principal Topics:* Purpose, scope, and use of job analyses in writing courses of study, writing and using instruction sheets for teaching, constructing achievement tests in industrial subjects. The student is required to select some industrial subject and write a course of study based upon analyses of jobs covered under that subject. Prospective teachers are urged to select subjects which they expect to teach later.

MR. BROCK

\*VOC. ED. 33—FUNDAMENTALS OF PHYSICAL EDUCATION—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give the student a knowledge of the basic principles underlying the promotion of an adequate program of physical education. *Principal Topics:* The place of physical education in the curriculum of the modern school. The relation of physical education to the scheme of general education. The part that anatomy, physiology, hygiene, sociology,

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\*Voc. Ed. 33, 49.5, 58, and 64 are courses in Physical Education; other courses may also be offered in this field.

psychology and like sciences have to do with a successful physical education program. Methods of motivating physical education are stressed.

MR. KIRCHNER

VOC. ED. 33.5, 34.5—ART METAL WORK—Semesters 1 and 2, 1-3 cr.

*Purpose:* This course is primarily for industrial education students and others who plan to teach art metal courses in public schools and who would like to become acquainted with the making of plates, letter openers, trays, bowls, and metal-working tools. To study methods of teaching and methods of introducing art metal work in the public schools. *Principal Topics:* The obtaining of tools and materials, organizing the class, methods of teaching, making wooden mallets, forming blocks, actual making of objects, teaching art metal work to selected students.

MR. BROCK

VOC. ED. 35—PSYCHOLOGY FOR TEACHERS—Semester 1 (2 and 2) 3 cr.

(See Psychology 35.)

*Purpose:* To acquaint students of education and others with some fundamental characteristics of human behavior. *Principal Topics:* Physiological bases of behavior, mental growth, the emotions and their expression, the learning process, individual differences and their measurement, personality, problem children, abnormal behavior. (*Psychology for Students of Education*—Gates; *Personality, Its Development and Hygiene*—Richmond.)

MR. ALEXANDER

VOC. ED. 37—RURAL AND VILLAGE SCHOOL PROBLEMS—Semester 1 (3 and 0) 3 cr.

*Purpose:* To introduce the student to the problems facing a teacher in rural and small town schools, and from this to determine the qualifications necessary for a successful teacher. *Principal Topics:* Correlation of the curriculum with the desirable social trends in agricultural and industrial communities, the summer session, transportation problems, special qualifications of teachers.

MR. MONROE

VOC. ED. 38—TEACHING OF DRAWING—Semester 2 (2 and 2) 3 cr.

*Prerequisite:* Drawing 14 (or equivalent).

*Purpose:* To train for the teaching of drawing and the understanding of some of the elements of the subject. *Principal Topics:* Psychology as applied to the subject, planning the layout of suitable course to meet group needs, some of the arts and sciences used in drawing, fitness of

teacher and student in class work, vocational direction in this field, methods, reading of drawings, grades, and grade methods. (Reference texts used as assigned.)

MR. KLUGH

Voc. Ed. 39—PRINCIPLES OF SECONDARY EDUCATION—Semester 1 (3 and 0) 3 cr.

*Purpose:* To give prospective teachers the results of experience, research, and thinking in education which form the basis of sound practice in teaching high school subjects. *Principal Topics:* Characteristics and need of education, characteristics of learning, knowledge and thinking ability, motor, moral, and appreciative reactions, choice of subjects and activities, influence of age, maturity, and individual differences, methods of teaching, appraising results of education.

MR. TATE

Voc. Ed. 40—PRACTICE TEACHING IN AGRICULTURE—Semester 2 (0 and 15) 5 cr.

*Purpose:* To give the students an opportunity to discharge the duties and responsibilities of an agricultural teacher in a local community. *Principal Topics:* Students participate in all-day, part-time, evening-class, and day-unit work. Habits, attitudes, ability to assume responsibility, promptness, general reliability, and degree of skill developed are some of the factors considered in rating the student as a prospective teacher. Students spend five afternoons a week in the practice schools. The opening date, daily schedule and general program of the high school may determine registration and participation in this course.

MR. CRANDALL MR. MONROE MR. STRIBLING MR. JOHNSON MR. BOWEN

Voc. Ed. 41—PRINCIPLES OF VOCATIONAL EDUCATION—Semester 1 (1 and 9) 4 cr.

*Purpose:* To instruct students in principles and methods in connection with practice teaching. *Principal Topics:* Emphasis is placed on the participation of students in all possible phases of the work of a teacher of agriculture in a local community. Students organize and teach all-day- part-time, evening, and day-unit classes. Students are held responsible for definite phases of community and promotional work.

MR. CRANDALL MR. WHITE MR. MONROE MR. STRIBLING MR. BOWEN

Voc. Ed. 42—METHODS IN AGRICULTURAL EDUCATION—Semester 2 (3 and 0) 3 cr.

*Purpose:* Problems and difficulties that arise in practice teaching receive special emphasis in this course. *Principal Topics:* A thorough

survey is made of teaching content for all-day, part-time and evening-class students. Students make careful analyses of conditions and practices of farming in a local community as a source of teaching content. Other sources of teaching content which receive emphasis in this course are data from experiment stations and the United States Department of Agriculture.

MR. CRANDALL

Voc. Ed. 43 and 44—PRACTICE TEACHING IN INDUSTRIAL SUBJECTS—Semesters 1 and 2 (0 and 10) 5 cr.

*Purpose:* To develop through supervised practice-teaching those techniques, attitudes, and principles universally valuable in teaching, to give prospective teachers experience in handling problems in the school. *Principal Topics:* Organizing class, selection of teaching materials, planning work, discipline, teaching methods, examinations and grading, co-operation with school personnel, records and reports, inventories, and upkeep of equipment. Each student teacher periodically is given an opportunity to teach some industrial subject. During his teaching period he is responsible for his class just as if he were an employed teacher of that subject, including conforming to the high school schedule and registration period.

MR. TATE

MR. BROCK

Voc. Ed. 45—TEACHING SCIENCE—Semester 2 (3 and 0) 3 cr.

*Purpose:* To familiarize students with the objectives and methods of science instruction in public schools. *Principal Topics:* Project method of teaching science, aims and values of science instruction, teaching content, classroom procedure, and relationship of science instruction to the general and vocational courses and to administrative procedures.

Voc. Ed. 46—TECHNIQUE OF TEACHING—Semester 2 (3 and 0) 3 cr.

*Purpose:* To acquaint the prospective teacher with the most significant problem in industrial teaching, to propose solutions for those problems consistent with most authoritative information available. *Principal Topics:* Shop planning, organizing classes, selection of equipment and tools, ways of securing materials and supplies for school shop, introducing a shop program, financing a shop program, advertising a shop program, methods of teaching, and discipline.

MR. TATE

Voc. Ed. 47—HISTORY AND PHILOSOPHY OF EDUCATION—Semester 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the historical development of education and to develop an appreciation for the contributions of the



various leaders in education. *Principal Topics*: Education in the Orient, early European education, the contributions of Plato, Luther, Locke, Rousseau, Spencer, Herbart, Dewey, and others. The development of public education in South Carolina, special attention given to the social significance of the school.

MR. WASHINGTON

VOC. ED. 48—TEACHING OF PHYSICS AND MATHEMATICS—Semester 2 (3 and 0) 3 cr.

*Purpose*: To train the prospective teacher in course-building and the methods of teaching as applied especially to mathematics and physics. *Principal Topics*: The purpose of physics and mathematics in the high school course, project planning, lesson planning, analysis of adopted textbooks, supplementary teaching materials and equipment, conduct of the recitation, grading, class management, and discipline.

VOC. ED. 49.5—LEADERSHIP IN COMMUNITY RECREATION—Semester 1 or 2 (2 and 3) 3 cr.

*Purpose*: To train leaders in the recreation field. *Principal Topics*: The aims, objectives and philosophy of the recreation movement. Historical background. Planning programs to meet community needs in the rapidly expanding leisure. A survey of organizations dealing with recreational problems. Students are given the opportunity to get practical experience in leadership by conducting social recreation activities and game programs in adjacent communities.

MR. KIRCHNER

VOC. ED. 50—PROBLEMS IN ADVANCED WOODWORK FOR TEACHERS—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

MR. MARSHALL

VOC. ED. 51—PRACTICE TEACHING IN HIGH SCHOOL SUBJECTS—Semesters 1 and 2 (0 and 6) 3 cr.

*Purpose*: To give supervised practice in teaching general science, chemistry, mathematics, civics, etc., in order to develop skill in the best methods of teaching these subjects. (Enrollment is by individual approval and may be dependent upon observing the high school schedule including registration, etc.) *Principal Topics*: Selection of subject matter, planning work, methods of teaching, examinations, grading, discipline, cooperation with school personnel, records, and reports. When possible the student teacher is allowed to teach his subject of greatest interest. During his teaching period he is under close supervision and is held fully responsible for his class.

MR. TATE

VOC. ED. 53—PRACTICE TEACHING IN EVENING CLASSES—Semesters 1 and 2 (0 and 2) 1 cr.

*Purpose:* To give the prospective industrial teacher practice in organizing trade and industrial evening-classes, organization of suitable instructional material and the actual teaching of such classes. *Principal Topics:* Organization of classes, selection of teaching material, planning work, cooperation with industry, reports and records, and follow-up.

MR. TATE                      MR. BROCK

VOC. ED. 55—DIVERSIFIED OCCUPATIONS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To study the major occupations in the United States and in South Carolina in order that prospective teachers may become informed as to possibilities in them and more intelligently give guidance to high school students. *Principal Topics:* A survey of the youth problem, employment trends, general industrial conditions, kind of men industries want, survey of industrial plants, testing for mechanical aptitude, organizing occupations course in high school.

MR. BOOKER

VOC. ED. 56—EDUCATIONAL AND VOCATIONAL GUIDANCE—Semester 2 (3 and 0) 3 cr.

*Purpose:* Study of meaning, purpose, and aim of guidance, methods of investigation in guidance, methods of guiding students, results of guidance. Each student will prepare a program of guidance suitable for a typical school system. *Principal Topics:* Need, meaning, basic assumptions, aims, and objectives of guidance; general methods of investigation; use of school records, explanatory activities, tests, estimates of personality traits, and self-analysis as methods of studying the individual; methods of securing and assembling facts about courses of study in educational instruction; methods of study of occupations; guidance of students in choice of occupation; choice of training, and organization of guidance.

VOC. ED. 58—HIGH SCHOOL COACHING—Semester 2 (2 and 0) 2 cr.

*Purpose:* To train prospective high school coaches in the fundamentals of developing individuals and teams. *Principal Topics:* Emphasis is given to educational value of clean sports and particular attention is given to the physical condition of the student body, conditioning and training for competitive participation in football, basketball, and baseball. Field laboratory work may be required in addition to the class work.

MR. HOWARD

VOC. ED. 59—ADMINISTRATION OF VOCATIONAL AND OTHER SCHOOLS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To acquaint the prospective teacher with modern administration technique in public education. *Principal Topics:* The public school curriculum, the administration of vocational departments, the duties of the principal and his relationship to the school board, etc. Attention will also be given to certain legal phases of school administration.

MR. WASHINGTON

Voc. Ed. 60—COORDINATING COOPERATIVE VOCATIONAL EDUCATION—Semester 2 (1 and 3) 2 cr.

*Purpose:* To train students in organizing and supervising a program of vocational education carried on cooperatively between the high school and industries in the community. *Principal Topics:* Vocational education and the community, responsibilities of the coordinator, organizing a co-operative program, evaluating the program, developing schedule of processes, supervising the program, promoting vocational evening classes, development of vocational library, teaching related technical material.

Voc. Ed. 61 and 62—INDUSTRIAL LABORATORY—Semesters 1 and 2 (0 and 6) 2 cr.

*Purpose:* To develop an industrial background for the teacher who is to have charge of a comprehensive industrial program in a community where an effort is being made to train young men and adult industrial workers in the individual skills of productive employment in industrial occupations. This will include woodworking, painting, metalworking, drafting, etc., and also the interplay of skills between these as adapted to teaching situations. *Principal Topics:* Planning, investigating, and determining the requirements in the way of materials, time and equipment, and executing the plans of such industrial projects as (1) forms, objects and structures in concrete, (2) economic utilization of various woods and lumber, (3) construction of objects of economic usefulness in metal, (4) skills in pipefitting and plumbing, (5) determining the economy of various electrical appliances, (6) economical repair of electrical appliances, etc. The student will be required to select his projects, furnish materials, make preliminary plans and sketches for them, and have these approved by the instructor. At the completion of each project in the laboratory the student will be carefully examined concerning the work he has done.

MR. TATE

MR. BROCK

Voc. Ed. 64—SPORTS ORGANIZATION AND PROMOTION—Semester 2 (2 and 3 ) 3 cr.

*Purpose:* To aid the student in organizing and promoting wholesome sports appropriate for schools and colleges. *Principal Topics:* The content of a comprehensive sports program; sports as educational ac-

tivities; the value of sports from the avocational angle in the present social order; the intramural program, the interscholastic program, and the playground program. Special attention is given to developing organizations that promote appropriate recreation for all, rather than the few.

MR. KIRCHNER

Voc. Ed. 100—SPECIAL PROBLEMS IN EDUCATION—Semesters 1 and 2 1-5 cr. (enrollment by individual permission.)

*Purpose:* To provide an opportunity for persons needing special assistance in meeting emergency or unusual situations in educational work.

Students who enter this course are required to provide their own transportation in connection with field work.

### WEAVING AND DESIGNING

MR. McKENNA

MR. CARTEE

MR. TARRANT

MR. WILLIAMS

MR. WALTERS

MR. WALKER

W. D. 12—TEXTILES—Semesters 1 and 2 (1 and 2) 1 2/3 cr.

*Purpose:* To give the student a general background for the work which follows, and enable him to see the industry as a whole. *Principal Topics:* Elementary studies of weaving, designing, warping, and slashing. (*Beam Warpers, Slashers, Northrup looms*—International Textbook Company; *W. D. Mimeograph Notes.*)

MR. WALKER

W. D. 21—ELEMENTARY DESIGN—Semester 1 (2 and 0) 2 cr.

*Suggested Preliminary Course:* W. D. 12.

*Purpose:* To give thorough instruction in the construction of the fundamental weaves and their derivatives. *Principal Topics:* Plain, twill, and sateen weaves, derivatives, harness and chain drafts, principles of color harmony. (*Design Textbooks*—International Textbook Company; *W. D. Mimeograph Notes.*)

MR. TARRANT

W. D. 22—ADVANCED DESIGN—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 21.

*Purpose:* To instruct the student in constructing weaves for the more intricately woven fabrics. *Principal Topics:* Extra warp and filling for weight and figure, double cloths, velvets, plushes, corduroys, and turk-



ish toweling. (*Design Textbooks*—International Textbook Company; *W. D. Mimeograph Notes*.)

MR. McKENNA

MR. TARRANT

W. D. 23—WEAVING—Semester 1 (0 and 2) 2/3 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To give the student thorough training in the operation, construction, and adjustment of loom mechanisms. *Principal Topics:* Analytical study of the loom, the shedding motion, design of shedding cams, the picking motion, the beating-up and the take-up motions; take-up calculations, let-off mechanisms, the filling stop motion, batteries, automatic loom adjustment, and practical loom fixing. (*W. D. Mimeograph Notes*.)

MR. WALKER

MR. WALTERS

W. D. 24—WEAVING—Semester 2 (0 and 3) 1 cr.

*Prerequisite:* W. D. 23.

*Purpose:* To give the student instruction in fabric production on the more advanced types of looms with special cams and attachments. *Principal Topics:* Mechanical and electrical warp stop motions, filling feelers, thread cutters, shuttle change mechanisms, selvage and side cam motions, loom fixing. (*W. D. Mimeograph Notes*.)

MR. WILLIAMS

MR. TARRANT

\*W. D. 25—WEAVE ROOM PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To apply the fundamental principles of mathematics to weave room problems. *Principal Topics:* Mechanical calculations of the loom, the theoretical and practical production of the loom, yarn, beam, and fabric calculations, loom equipment and slasher problems. (*Weave Room Calculations*—Clark; *W. D. Mimeograph Notes*.)

MR. CARTEE

W. D. 26—WEAVE ROOM PROBLEMS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 12.

*Purpose:* To apply the fundamental principles of mathematics to weave room problems. *Principal Topics:* Mechanical calculations of the loom, the theoretical and practical production of the loom, yarn, beam,

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\*W. D. 25 and Y. M. 24 or Y. M. 23 and W. D. 26 constitute required textile mathematics in Textile Engineering and Weaving and Designing courses.

and fabric calculations, loom equipment and slasher problems. (*Weave Room Calculations*—Clark; *Cotton Mill Calculations*—Smith and Quigley; *W. D. Mimeograph Notes*.)

MR. TARRANT

MR. CARTEE

W. D. 31—DOBBY DESIGN—Semester 1 (2 and 0) 2 cr.

*Prerequisite:* W. D. 21.

*Purpose:* To give instruction in the derivation of the specifications and drafts necessary for the productions of fabrics on the dobby loom. *Principal Topics:* Ratio of intersections; methods of combining weaves; laying out weaves for figures, stripes, and checks, dressing and beaming plans; harness, reed, and chain plans. (*W. D. Mimeograph Notes*.)

W. D. 32—ADVANCED DOBBY DESIGN—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 31.

*Purpose:* To give the student training in designing the more advanced types of dobby-woven fabrics. *Principal Topics:* Weaving specifications for handkerchiefs, clip-spot fabrics, double cloths, and composition of original dobby patterns. (*W. D. Mimeograph Notes*.)

MR. MCKENNA

MR. TARRANT

W. D. 33, 34—FABRIC ANALYSIS—Semester 1 (0 and 2) 1 cr. Semester 2 (0 and 2) 1 cr.

*Prerequisite:* W. D. 12, (W. D. 21 and 22 suggested.)

*Purpose:* To give the student a thorough knowledge of the analysis of fabrics as they come to the mill for reproduction. *Principal Topics:* Methods of determining yards per pound from a small sample and from the yarn counts; overall and ground construction; selection of yarn counts; determining the design, drawing-in-draft, chain draft, and reed plan; warp dressing plan; cotton, wool, silk, and rayon fabric. (*W. D. Mimeograph Notes*.)

MR. CARTEE

W. D. 35—FANCY LOOM FIXING—Semester 1 (0 and 2) 2/3 cr.

*Purpose:* To give the student an understanding of the principles of operation, timing, and settings of the dobby and drop box looms. *Principal Topics:* A study of harness settings for various types of patterns; setting and timing of cylinder, knives, crankshaft, box motion, hooks, and chains; building box, pattern, and multiplier chains; weaving fabrics from original chains. (*Dobbies, Box Motions, Dobby and Dobby Multipliers; W. D. Mimeograph Notes*.)

MR. CARTEE

W. D. 36—FANCY LOOM FIXING—Semester 2 (0 and 2)  $2\frac{2}{3}$  cr.

*Prerequisite:* W. D. 23 and 24 (W. D. 35, Suggested).

*Purpose:* To give practical instruction in the timing and setting of special motions used on dobby and box looms. *Principal Topics:* Double cylinder dobbies, rocking cylinder, two weave and center filling stop motion; automatic stationary magazines; four chain multipliers, warp striper, and feeler motion. (*Crompton and Knowles Bulletins; W. D. Mimeograph Notes.*)

MR. CARTEE

W. D. 37—RAYON PROCESSING—Semester 1 (1 and 2)  $1\frac{2}{3}$  cr.

*Prerequisite:* Open to juniors and seniors in the Textile School.

*Purpose:* To instruct the student in the processes of rayon warp preparation and in the weaving of rayon fabrics. *Principal Topics:* Rayon yarns classified according to the processes used in their manufacture; physical properties of the rayons and their relation to processing; winding, warp, and slashing; sizing materials and formulae; rayon weaving. (*Rayon and Synthetic Yarn Handbook—Schwarz.*)

MR. MCKENNA

W. D. 41—JACQUARD WEAVING—Semester 1 (1 and 2)  $1\frac{2}{3}$  cr.

*Purpose:* To give instruction in the operation and mechanism of the Jacquard machine and complementary equipment. *Principal Topics:* Types of Jacquard machines, types and methods of harness building, designs for different tie-ups, card cutting and lacing. Jacquard machine fixing. (*Jacquards, International Textile Book Company; W. D. Mimeograph Notes.*)

MR. MCKENNA

W. D. 42—JACQUARD DESIGN—Semester 2 (1 and 4)  $2\frac{1}{3}$  cr.

*Purpose:* To give instruction in the design of fabrics of artistic value for decorative purposes. *Principal Topics:* Application of the principles of decorative design; derivation of original designs by the use of color, weave, and form; pattern enlargement; card cutting and lacing; sample weaving. (*W. D. Mimeograph Notes.*)

MR. MCKENNA

W. D. 43—COST FINDING—Semester 1 (3 and 0) 3 cr.

*Prerequisite:* Open to juniors and seniors in the Textile School.

*Purpose:* To teach the fundamentals of cost finding procedure and the control of manufacturing costs. *Principal Topics:* Standard costs,

cost control, valuing the inventory, material costs, labor budgets, distribution of fixed charges, departmental processing costs, determining the costs of individual yarns and fabrics, cost reports. (*Computing Cotton Fabric Costs*—Hill; *W. D. Mimeograph Notes*.)

MR. CAMPBELL

W. D. 44—LENO DESIGN AND WARP PREPARATION—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* W. D. 31, 33, and 34.

*Purpose:* To give the student thorough instruction in the practice of warp preparation and in the structure of cross-woven fabrics and the methods employed in their design and production. *Principal Topics:* Mechanism for leno weaving, simple leno fabrics, fancy leno on one set of doup, the slotted doup, three-end leno; full turn leno, advanced fabric styling, starches; sizes, slashing methods, warping machinery. (*Fundamentals of Leno Weaving*—Shinn and McKenna; *W. D. Mimeograph Notes*.)

MR. MCKENNA

W. D. 45, 46—PATTERN WEAVING—Semesters 1 and 2 (0 and 2) 2/3 cr.

*Purpose:* To coordinate the principles taught in the fundamental courses of the Weaving and Designing Department. *Principal Topics:* The student will be required to design and produce to specifications one fancy cloth each semester and submit reports covering the design and analysis. (*W. D. Mimeograph Notes*.)

MR. MCKENNA

W. D. 45.5, 46.5—ADVANCED PATTERN WEAVING—Semesters 1 and 2 (0 and 6) 2 cr.

*Prerequisite:* W. D. 31, 32, 33, and 34.

*Purpose:* This course is arranged especially for students in textile design with the objective of giving the student more time to apply the principles of design in the production of fancy fabrics. *Principal Topics:* The student will be required to produce two decorative fabrics of a complex nature each semester and submit reports covering their specifications, design, analysis, and manufacturing cost.

MR. MCKENNA

W. D. 47—INDUSTRIAL MANAGEMENT—Semester 1 (2 and 0) 2 cr.

*Purpose:* To give the student an insight into the principles of factory organization and administration. *Principal Topics:* The design and construction of factory buildings, selecting equipment, plant layout, material



handling, lighting, time and motion study, wage payment plans, manufacturing costs. (*Industrial Engineering and Management*—Barnes.)

MR. McKENNA

W. D. 47.5—PERSONNEL MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Purpose:* To acquaint the student with the personnel problems of the textile mills and the methods employed in the management of labor. *Principal Topics:* Employee development, industrial historical background, selection and placement, compensation, job analysis and specifications, joint relations, personnel records, industrial sanitation and health, safety, industrial codes. (*Applied Personnel Administration*—Walters.)

MR. McKENNA

W. D. 48—KNITTING—Semester 2 (0 and 2) 2/3 cr.

Open to juniors and seniors in the Textile School.

*Purpose:* To familiarize the student with the principles of knitted fabric construction and hosiery production. *Principal Topics:* Knitting mechanisms, construction of knitted fabrics and hosiery, rib knitting, hosiery machinery, fancy knitting, sinker-reverse plating, the float and the welt stitch principle, hosiery analysis, material costs, labor costs, overhead costs, knitting calculations. (*W. D. Mimeograph Notes*.)

MR. CARTEE

W. D. 50—THESIS—Semester 2 (0 and 2) 1 cr.

*Purpose:* To introduce the student to the experimental method of solving problems. *Principal Topics:* Individual problems requiring original investigation will be assigned in some phase of textile manufacture. The thesis will consist of a report on the results obtained through research or experiment.

MR. CARTEE      MR. McKENNA

## YARN MANUFACTURING

MR. EATON

MR. DUNLAP      MR. BLAIR      MR. GAGE      MR. CAMPBELL

Y. M. 11—THE TEXTILE INDUSTRY—Semester 1 or 2 (1 and 2) 1 2/3 cr.

*Purpose:* To introduce textile students to the industry through study and discussions on factory organization, the use of cleaning and spinning machines, nomenclature. *Principal Topics:* Brief history of the industry, relation of owners and management, economic importance of textiles. The laboratory is used to demonstrate each machine used in yarn manu-

facturing. Calculations of machine speeds, drafts, and waste explain the action of each machine and its parts and yarn numbering. (*Y. M. Mimeograph Notes.*)

MR. EATON      MR. WILLIAMS      MR. DUNLAP      MR. GAGE

Y. M. 21—PICKERS—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student thorough knowledge of cotton opening, cleaning, and lap forming equipment. *Principal Topics:* Bale breakers, automatic feeders, lappers, cleaning trunks, beaters, evener motions, and measuring devices, calculations for drafts, production, waste, and speeds. (*Cotton Yarn Manufacture—Winchester; Y. M. Mimeograph Notes.*)

MR. BLAIR

Y. M. 22—CARDS AND DRAWING FRAMES—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give the student thorough knowledge of revolving top flat cards and drawing frames as used in cotton manufacturing. *Principal Topics:* Settings, grinding, stripping, card clothing, calculations for card speeds, production, waste, and draft, metallic and covered top rolls, roll settings, all calculations and practice in operating both machines. (*Cotton Yarn Manufacture—Winchester; Y. M. Mimeograph Notes.*)

MR. GAGE      MR. EATON      MR. BLAIR

Y. M. 23—MILL PROBLEMS—Semester 1 (2 and 0) 2 cr.

*Purpose:* To give a thorough foundation in arithmetic as applied to textile manufacturing. *Principal Topics:* Problems in draft, twist, waste percentage, production, and machine organizations. (*Cotton Mill Mathematics—Quigley and Smith; Y. M. Mimeograph Notes.*)

MR. CAMPBELL      MR. DUNLAP

\*Y. M. 24—MILL PROBLEMS—Semester 2 (2 and 0) 2 cr.

*Purpose:* To give a thorough foundation in arithmetic as applied to textile manufacturing. *Principal Topics:* Deals with problems in draft, twist, waste percentage, production, and machine organizations. (*Cotton Mill Mathematics—Quigley and Smith; Y. M. Mimeograph Notes.*)

MR. DUNLAP      MR. CAMPBELL

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\*Y. M. 23 and W. D. 26, or W. D. 25 and Y. M. 24 constitute required textile mathematics in Textile Engineering and Weaving and Designing courses.

Y. M. 28—COTTON GRADING—Semester 1 or 2 (0 and 2) 2/3 cr.

*Purpose:* To teach the fundamentals of cotton classing according to U. S. Government Standards for grades and staples. *Principal Topics:* Stapling, classing, and valuing all grades of cotton raised in U. S.; methods of ginning, marketing, and handling cotton; contracts and claims. (*Government Bulletins; Cotton Yarn Problems—Smith; Y. M. Mimeograph Notes.*)

MR. GAGE

MR. BLAIR

Y. M. 31—ROVING FRAMES—Semester 1 or 2 (2 and 2) 2 2/3 cr.

*Purpose:* To give complete information on the construction and operation of fly frames. *Principal Topics:* Drafting, twisting and winding on slubbers, intermediates, and Jack frames; production, rolls, spindles, and flyers, differential motions and cones, twist per inch, sizing roving, all calculations for these topics. (*Cotton Yarn Manufacture—Winchester; Y. M. Mimeograph Notes; Cotton Yarn Problems—Smith.*)

MR. EATON

Y. M. 34—SPINNING, SPOOLING, AND TWISTING—Semester 1 or 2 (2 and 3) 3 cr.

*Suggested Preliminary Course:* Y. M. 31.

*Purpose:* To give thorough knowledge of cotton yarns and their manufacture on ring spinning frames, winding, spooling, and twisting machinery. *Principal Topics:* Machine construction, functions of all parts, calculations for draft, twist, doubling, and constants; wet and dry twisting, rings, and travelers. (*Cotton Yarn Manufacture—Winchester; Cotton Yarn Problems—Smith; Y. M. Mimeograph Notes.*)

MR. DUNLAP

Y. M. 42—COMBERS, SLIVER AND RIBBON LAPPERS—Semester 2 (1 and 2) 1 2/3 cr.

*Purpose:* To study settings and adjustment of the comber and its preparatory machines, and the value and use of its product. *Principal Topics:* Timing and setting comber for various staples and required waste, production and all other calculations, management, and operation of these machines.

MR. BLAIR

Y. M. 43—DOUBLING AND DRAFTING—Semester 1 (1 and 2) 1 2/3 cr.

Y. M. 31 and Y. M. 34 should precede Y. M. 43.

*Purpose:* To study as a manufacturing unit all card room and spinning room equipment. *Principal Topics:* Calculations for draft, pro-

duction, weights, and number of machines required for various counts; labor costs; production of yarn from raw cotton, using all necessary equipment.

MR. DUNLAP

Y. M. 44—MILL ECONOMICS—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* At least one textile course, preferably W. D. 43.

*Purpose:* To give seniors the principles of economics as applied to general management. *Principal Topics:* Cloth and cotton prices and their relation, calculations for quotations and delivery dates, mill construction, fire and accident insurance, wage and labor conditions. Some of these topics are made the subjects of written reports. (*Y. M. Mimeograph Notes; Management of a Textile Business*—Balderston and Karabasz.)

MR. EATON

Y. M. 48—TEXTILE TESTING—Semester 2 (1 and 2) 1 2/3 cr.

*Purpose:* To instruct the student in testing fiber, yarns, and fabrics. *Principal Topics:* The principal topics include such factors as variety, growing conditions, fiber uniformity, and others influencing the strength and uniformity of yarns. The importance of humidity and its effect upon the working qualities and strength of yarn will be demonstrated. (*A. S. T. M. Specifications* and *Y. M. Mimeograph Notes*.)

MR. WILLIS

Y. M. 50—THESIS—Semester 1 (0 and 2) 1 cr.

Required of all Textile Engineering Seniors.

*Purpose:* To summarize all information gained from previous Y. M. courses. *Principal Topics:* Using Y. M. Calculations, conducting manufacturing tests, analyzing test data, and preparing written reports.

MR. WILLIS

### *Testing Laboratory*

The textile testing laboratory is equipped with American Moistening humidifying and dehumidifying units, automatically controlled. The laboratory is equipped with modern machines for testing fibers, yarns, and fabrics.

### ZOOLOGY\*

MR. SHERMAN

MR. DUNAVAN

MR. WARE

ZOOL. 12—GENERAL ZOOLOGY—Semester 2 (2 and 4) 3 1/3 cr.

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\*See also Entomology. Students who major in the Entomology and Zoology Department are required to take several courses in Entomology in addition to those listed under Zoology.



*Purpose:* For general science and pre-medical students. To give the student a thorough training in the characteristics, life-histories, and habitats of the principal animal forms. *Principal Topics:* Physiology of living cells, animal environment, cell division, maturation, reproduction, genetics, observation and study of representatives of the principal animal phyla. (*Textbook of General Zoology*—Curtis & Guthrie; *Laboratory Directions in General Zoology*—Curtis & Guthrie.)

MR. WARE

ZOOL. 21—GENERAL ZOOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Purpose:* For students in agriculture. To familiarize the student with the characteristics, life-histories, and habits of the common types of animals. *Principal Topics:* Physiology of cells, animal environments, cell division, reproduction; observations and study of representative animals; special emphasis on agricultural phases of the subject. (*Textbook of General Zoology*—Curtis & Guthrie; *Laboratory Directions in General Zoology*—Curtis & Guthrie.)

MR. DUNAVAN

MR. WARE

ZOOL. 33—ADVANCED ZOOLOGY—Semester 1 (2 and 2) 2 2/3 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To give advanced training in zoological principles and characteristics of animal forms as a basis for later graduate study. *Principal Topics:* Histology, embryology, ecology, distribution, and economic relationships of vertebrate animals, characteristics of all vertebrate groups.

MR. WARE

ZOOL. 48—INTRODUCTION TO GAME MANAGEMENT—Semester 2 (2 and 0) 2 cr.

*Prerequisite:* Zool. 12 or 21.

*Purpose:* To present the subject of Game Management with special reference to game mammals and game birds. *Principal Topics:* Game mammals, birds and fishes of South Carolina and of the United States with reference to conservation and recreation. (No textbook required. Reference works to be used: *Game Management*—Leopold; *The Bob White Quail*—Stoddard; publications of U. S. Bureau of Biological Survey and Bureau of Fisheries.)

MR. SHERMAN

## PART VI—PUBLIC SERVICE

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### *THE SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION\**

The Agricultural Experiment Station of South Carolina is a department of Clemson College. The experiment station at present consists of the main station, which is located at Clemson, and five sub-stations: one at Summerville, in the coastal plain region; one at Florence, in the Pee Dee section; one at Pontiac, near Columbia, in the sand hill region; one in the trucking section near Charleston; and one in Barnwell county in the melon-growing area. The main offices and laboratories of the station are located on the Clemson College campus, while the station experiment farm, consisting of about 200 acres, is east of and adjoining the college campus. The investigations dealing with the fundamental principles of agricultural sciences and with the application of such principles to practical agricultural operations are carried on in the laboratories and on the experiment station farm at Clemson. The experiments looking to the adaptation of such scientific data accumulated here and elsewhere to the conditions peculiar to certain sections of the State are carried on at the sub-stations and at branch laboratories established in certain sections of the State for this purpose.

It is the aim of the experiment station to conduct research work on problems which have a direct practical bearing on the agriculture of the State. With this end in view extensive experiments relative to the best methods of procedure under various conditions with the principal plants and animals have been undertaken. Economic and social problems are likewise being investigated. As progress is made the results obtained are given out to farmers in the form of bulletins, circulars, and personal letters. Since the establishment of the station, 324 such bulletins and sixty circulars have been published, covering practically all phases of agriculture.

Aside from the research work and the publication of results obtained from such research, the experiment station performs

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\*The experiment station staff is given on page 20.

various other duties. Among these might be mentioned the entomological and pathological inspection work (which aims to protect the farms, orchards, and gardens of the State against the introduction of injurious insects and diseases); the biological and soil survey of the State, and the cooperative experimental work carried on with hundreds of farmers in the State. The technically trained experts of the station staff are regarded as authorities in their several specialties, and they are constantly giving out information relating to the various lines of agricultural endeavor. The station staff also aids in disseminating agricultural knowledge by cooperating with the Extension Service of the College in holding agricultural meetings and conferences and by meeting with the farm demonstration agents and giving to them technical information which they in turn carry direct to the farmers.

Close cooperation is maintained with the various research bureaus of the United States Department of Agriculture and with the departments of the College. The laboratories are always open to the inspection of the students and other people of the State. The same is true of the experiment station farm. There is always opportunity for a limited number of students to secure work in the various divisions of the station and to assist in the research work carried on by the members of the station staff.

Home economics research is carried on in cooperation with Winthrop College at Rock Hill. This work is designed to secure additional information on economic, social, and health factors influencing the home and living conditions of rural people.

Close cooperation is maintained between the home economics research department, the teaching and extension workers in this field, and the clubs and societies engaged in the promotion of better rural homes.

A full report of the work and expenditures of the Experiment Station is published annually and this report and all other publications of the station are free and will be sent on request. (Requests for these should be addressed to the Director, Agricultural Experiment Station, Clemson, S. C.)

### FERTILIZER INSPECTION AND ANALYSIS

The work of fertilizer inspection and analysis is under the supervision of the Fertilizer Board of Control consisting of a Committee of the Board of Trustees. The work of inspection and analysis is a department of the Agricultural Experiment Station. District Inspectors are located in different parts of the State. Their duties are to collect official fertilizer samples for analysis and check on the tagging and labelling of all fertilizer material.

The chemical work consists of the analysis of commercial fertilizers as provided for by the Fertilizer Law of the State. This Department also undertakes the analysis of waters, ores, minerals, and other naturally occurring materials, portions of human bodies in cases of suspected poisoning (as provided for by law), and the analysis of home-mixed fertilizers. All the work of this Department is done without charge.

### THE AGRICULTURAL EXTENSION SERVICE\*

The agricultural extension work of the College is carried on by the Extension Service in cooperation with the United States Department of Agriculture. The work is supported by Federal appropriations and in part by State and County appropriations. The main development of extension work has come since the enactment of the Smith-Lever Act in 1914. The purpose of extension work is to diffuse among farm people useful and practical information on subjects related to agriculture and the farm home, and to stimulate the application of this information. A staff of specialists assists the county agents in planning and carrying out demonstrations with farmers over the State.

*Publications and News.*—Large numbers of publications, including bulletins, circulars, posters, and information cards, are distributed annually. The extension news service to the newspapers of the state consists of (1) mimeographed news letters to all papers issued twice weekly or oftener averaging thirty to forty stories per month; (2) news letters to the daily papers

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\*The extension staff is given on pages 24 to 28.



through the Associated Press as occasion demands; (3) longer special or feature stories to individual papers or groups of papers when special material is at hand. Monthly letters or printed circulars on poultry, orchards, gardening, dairying, and boys' club work are mailed free to those persons especially interested in these subjects.

*County Agents.*—Every county in the State, by Act of the Legislature in 1929, has a county farm agent. These agents are agricultural college graduates who have had practical farm experience. They devote their time to instructing farmers through demonstrations, personal conferences, meetings, community organizations, publications, letters, and otherwise.

*Home Economics Work.*—This work is carried on under the immediate supervision of Winthrop College. It is, however, a part of the extension work under the Smith-Lever Act, and is under the general direction of the Extension Service. Every county is provided with a home demonstration agent by legislative enactment.

*Negro Demonstration.*—Seventeen local negro agents are employed to work with the negro farmers of the State in sections where the negro population is great. These agents are employed in cooperation with the State College at Orangeburg, where the supervising agent is stationed.

*Live Stock.*—Work in this project is carried on with the idea of promoting the live stock interest of the State along sound, permanent lines. Those desiring to purchase purebred live stock can in most cases secure them within the State from breeders who have been assisted by the Extension Service. This was not true some years ago. Live stock agents have also stimulated the development of pastures and the growing of forage crops and have assisted in the feeding and marketing of cattle and the cooperative purchase of materials needed. There is a revival of interest in hogs and sheep, and these lines of live stock work will no doubt make greater demand for assistance from the Extension Service.

*Dairying.*—The extension dairymen devote their time chiefly to development work connected with pasture development, bull associations, feed campaigns, dairy schools, and dairy herd improvement associations. Information is furnished concerning the construction of silos and barns, the purchasing of dairy cattle, testing and improvement of herds, and the marketing of products.

*Corn and Cotton Work.*—Cotton demonstrations among farmers are conducted for the purpose of improving the quality of staple and lowering the costs through larger yields per acre. A similar line of demonstration is in operation to put the growing of corn on a more efficient basis.

*Orchards, Gardens and Sweet Potatoes.*—Home orchards and gardens, commercial peach and apple orchards, and the efficient production of sweet potatoes for market are the special interests of the extension horticulturists. The results obtained in the last few years along these lines are far reaching and point the way to better farm incomes through producing quality products.

*Poultry Work.*—The wisdom of increasing the size and quality of farm flocks is now being emphasized, together with efficiency in marketing poultry. For a number of years shipments of live poultry in car lots have been increasing. Many hatcheries are in operation, and every phase of poultry production is being enlarged. A modern poultry plant at Clemson was given to the College by a friend interested in promoting agricultural welfare and readjustment. This is one of the best poultry plants in the cotton states and serves as a place to work out poultry problems, as well as a demonstration to farmers and for teaching purposes.

*Marketing.*—Since marketing cannot be wholly separated from production, much of the time of all extension workers is devoted to helping perfect marketing services. The organization of co-operative marketing associations is encouraged. Proper grading and loading for shipment are stressed, particularly where farmers are just beginning to produce a new crop. Shipping point inspection for those who desire it has been provided in cooperation with the Federal Bureau of Agricultural Economics for the protection of shippers of certain perishable crops. Very little crop

surplus is produced for which some outlet has not been found. The chief problem lies in producing and preparing for market preferred quality products.

*Entomology.*—There are two principal lines of this work: first, insect control work; and second, beekeeping work. One specialist is employed who gives his time to the insect work, instructing farmers in the life history, habits, etc., of insects and control measures.

A specialist in beekeeping is employed to develop this industry for which the State has great possibilities.

*Boys' Club Work and Short Course.*—Boys' agricultural clubs are organized with the idea of enlisting the intelligent interest of the boys, and through them their parents, in improved methods of agriculture.

*Agricultural Economics.*—Much farm production takes place blindly without satisfactory knowledge on the part of the farmers and farm credit agencies of the prospect for success in any given enterprise, or for any particular acreage of a crop. There is a very great need for wider dissemination among farm people of economic information that may be used by them as a guide in planning their farm businesses. The importance of such information having been realized, a division of Agricultural Economics has been created in the Extension Service to aid in keeping the farm people of the State better informed on economic matters and to carry to them the results of research work and of farm experience.

Since the beginning of the acreage adjustment work of the Agricultural Adjustment Administration in 1933 under the United States Department of Agriculture, the work of the Extension Service has included the conducting of campaigns to carry out the policies of the AAA in seeking to improve the economic condition of the farmers.

*Agricultural Engineering.*—Two extension specialists are employed to help direct farm development along engineering lines, including terracing, drainage, two-horse and power equipment, as well as plans for farm buildings and other structures, better ginning service and rural electrification.

### *THE ENGINEERING EXPERIMENT STATION*

A majority of the Land Grant Colleges of the United States have established engineering experiment stations, and these have proved of great value in aiding industrial and engineering developments in the various states.

The engineering experiment station of the Clemson Agricultural College was established by the Board of Trustees in July, 1924.

Its purpose is to aid the present industries in the state, to do research work on the material resources of the state with a view of leading to the establishment of new industries, to study methods of utilizing waste products, etc.

In addition to serving the industries of the state and helping to solve engineering problems for the agricultural interests, it is hoped, in cooperation with the stations of other states, to add to the store of scientific and engineering knowledge. The staff consists of well-trained men from the various schools and departments of the college. The laboratories of the several departments of engineering, as well as others, are available for the use of the station in its investigation.

The results of all investigations are to be published in the form of bulletins and circulars to be distributed free to all who may be interested. Copies of publications may be secured by applying to the Director of Engineering Experiment Station, Clemson, South Carolina.

### *RESEARCH IN EDUCATION*

While members of the Education staff have conducted a number of research projects in the past, no definite research organization for educational research existed prior to 1936, at which time the research activities of the School of Vocational Education were organized. A grant from the General Education Board and the support of the college made possible the initiation of this program. Provisions were made for cooperative research in Vocational Agriculture with the State Supervisor of Agriculture in the expansion of that work under the George-



Deen Act. When the largest single expenditure of funds is involved, and when the largest number of any single enterprise is involved, it seems but natural that progressive educational programs should include a comprehensive effort in research. Clemson hopes through this work to help advance the cause of education along appropriate lines.

### *LIVESTOCK SANITARY WORK\**

The Clemson College Live Stock Sanitary Office is a department of Clemson College and is under the supervision of the Agricultural Committee of the Board of Trustees. This office is located in the State Office Building, Columbia, S. C., in order that the best interests of the livestock industry may be served, and is in charge of the State Veterinarian, Dr. W. K. Lewis, who is also Director of this Department.

The principal objectives of this office are tick eradication, tuberculosis eradication, hog cholera control, and Bang's Disease elimination. In addition to these, all reported outbreaks of contagious, infectious, and communicable diseases of livestock and poultry are investigated and measures recommended for their control and eradication; and quarantine is maintained against the introduction of diseased livestock into the State.

The Columbia office has a fully equipped laboratory for bacteriological, pathological, and serological work, in order that proper and prompt diagnosis of certain diseases may be made. Parasitic research work will be conducted in various sections of the State in cooperation with the Columbia laboratory.

In addition to the force of veterinarians working with the Columbia office, Assistant State Veterinarians are located at strategical points in the State in order to be readily available to all farmers.

On July 1, 1939, thirty-three practicing veterinarians of the State were commissioned as Deputy State Veterinarians, to assist the State Veterinarian in the control and eradication of con-

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\*Livestock Sanitary Work staff is given on page 23.

tagious and infectious diseases of livestock. The Deputy State Veterinarians are stationed principally in the northern and eastern sections of the State, so these together with the Assistant State Veterinarians in the middle and southern sections of the State, enable the Clemson College Live Stock Sanitary Office to render a service to the livestock industry of the State in keeping with its development and maintain the service at the highest degree of efficiency.

The Clemson College Live Stock Sanitary Office also maintains equipment for handling large stocks of anti-hog-cholera serum, virus, and veterinary biologics, and furnishes these products to the citizens of the State at cost, thereby effecting a saving to them of several thousands of dollars annually.

The live stock sanitary work is required by legislative enactment and is supported by legislative appropriations.

The Bureau of Animal Industry, U. S. Department of Agriculture, cooperates in tick eradication, tuberculosis eradication, hog cholera control, and Bang's Disease elimination, and appropriates funds in addition to the State appropriation for these objectives.

### MISCELLANEOUS PUBLIC SERVICE

*Entomological and Pathological Inspection.*—This work is carried on under the direction of the State Crop Pest Commission. The State Entomologist and the State Pathologist have charge of this work under the commission.

The work of these officers consists in the control of contagious plant diseases and insect pests. Supervision of all nursery stock sold within the State is a duty of the Crop Pest Commission.

A permit tag issued by the State Crop Pest Commission should be attached to every package of nursery stock, seed, or plants offered for sale or shipment for planting purposes.

*Textile Testing.*—The textile department maintains a yarn testing service for the cotton mills of South Carolina.

*Textile Research.*—Clemson in cooperation with the Bureau of Agricultural Economics of the United States Department of Agriculture conducts manufacturing tests of grades, staples, and varieties of cotton. Valuable reports based on this work are issued from time to time. Copies of these reports may be acquired by addressing either the College or the Bureau of Agricultural Economics, Washington, D. C.

*Service to Textile and Other Industrial Teachers.*—The College in cooperation with the State Department of Education is glad to assist those who teach night schools by supplying a trained man to assist in the work of organizing classes, organizing courses of study, making plans for teaching evening classes, and actually teaching vocational subjects. Requests for information regarding this service should be addressed to Professor L. R. Booker, Itinerant Teacher Trainer, Industrial Education Department, Clemson, S. C.

*Agricultural Follow-up and Itinerant Teacher Training.*—The members of the staff of Agricultural Education visit all beginning teachers for the purpose of assisting them on the job and also for the purpose of collecting information which may prove helpful in improving the work of teacher training at the College.

*Research in Vocational Agricultural Education.*—A research program has been inaugurated in the Department of Agricultural Education as one of the six functions of teacher training. This work is being done in cooperation with the State Department of Education. The state supervisors of agricultural instruction and the teacher trainers have adopted, as the purpose of research work at the present time, the promotion of better instruction in vocational agriculture in the public schools of the State.

*State Vocational Agricultural Judging Contest.*—The Clemson Agricultural College, cooperating with the State Department of Education, conducts annually a judging contest for students of vocational agriculture. The two schools ranking highest in the contest in 1939 were: First, Mountain View, W. F. Moore, coach; and second, Liberty, A. C. Ware, coach. Edward Spivey of

Mullins was awarded a prize as the highest individual contestant. The following teams won first places: Judging hogs and mules, Loris; judging all classes of poultry, Mullins; judging crops, Mountain View; judging horticultural products, Hampton. The Mountain View High School contestants won first place in judging general livestock and were given a trip to Kansas City to represent the State in the Vocational Students' Judging Contest at the American Royal Livestock Show.

*State-wide Industrial Education Contest.*—A state-wide Industrial Education contest was inaugurated by Clemson College and the State Department of Education in 1935. This contest has been open to all public schools teaching Industrial Education. The contest includes competition in woodworking, drawing, textiles, and toolcraft. The rules are outlined by members of the faculty representing those departments involved in the competition. Many valuable prizes are given each year to individuals and teams who participate in the contest. The greatest value is the interest created in craftsmanship on part of contestants. Any school may receive announcements concerning contest by writing H. S. Tate, Department of Industrial Education, Clemson, S. C.

*Publications.*—The Agricultural Education staff in cooperation with the State Department of Education publishes a monthly bulletin which is used by students of vocational agriculture in the public schools of the State. The contents of this bulletin consist largely of the results of experimental work in agriculture. There are a number of issues of Agricultural Education Bulletins which are available. A list of these will be furnished upon request to the Department of Agricultural Education.

### *SUMMER EDUCATIONAL ACTIVITIES*

During the summer, various activities are organized to serve the needs of special groups of students and others. The activities undertaken in the summer of 1939 included the following:



|                                             |                   |
|---------------------------------------------|-------------------|
| CCC Summer School for Advisers of Districts |                   |
| B and I .....                               | June 12-24        |
| Summer School .....                         | June 11-July 21   |
| Public School Trustees Meeting .....        | June 22           |
| Conference of County Superintendents of     |                   |
| Education .....                             | June 18-22        |
| Informal Conference of Administrators ..... | June 26-27        |
| Opportunity School .....                    | July 22-August 19 |
| Poultry Short Course .....                  | August 22-24      |

### *THE CLEMSON COLLEGE SUMMER SCHOOL*

The Clemson College Summer School provides an opportunity for Clemson and other college students to take advanced courses and hasten graduation, to take special work not offered during the regular session, or to make up back work for time lost on account of illness. It also provides opportunity for high school graduates to "test" their interest and ability in college work at a very nominal cost.

Education courses anticipated for 1940 include primary, elementary, junior high, secondary, vocational and special courses. There has been an unusually strong demand for teachers prepared at Clemson.

The following courses of study were offered during the 1939 Summer School. An announcement of the 1940 program may be secured in the spring by addressing either G. E. Metz, Registrar or W. H. Washington, Dean, Clemson College Summer School, Clemson, South Carolina.

## SUMMER SCHOOL COURSES

June 11-July 21

1939

| Dept. & No.<br>of course                                                   | Title | Instructor           | Credit          |
|----------------------------------------------------------------------------|-------|----------------------|-----------------|
| Ag. Ec. 100a—Cooperatives, Consumer*                                       |       | Ferrier              | 2               |
| Ag. 20—Soils (2-4MWF)                                                      |       | Collings             | 2 $\frac{3}{4}$ |
| Ag. 31—Fertilizers                                                         |       | Collings             | 2               |
| Ag. 101—Tobacco Production*                                                |       | McGee                | 2               |
| Ag. 102—Tobacco Grading*                                                   |       | Armistead            | 2               |
| Ag. Engr. 23s—Farm Shop Skills* (\$1.00)†                                  |       | Nutt or              | 2               |
| Ag. Engr. 38—Soil Conservation                                             |       | Richardson           | 2               |
| Bact. 31—Gen. Bacteriology (2-5MWF)                                        |       | Aull                 | 3 $\frac{1}{3}$ |
| Bot. 11—Gen. Botany (2-5MWF)                                               |       | Rosenkrans           | 3 $\frac{1}{3}$ |
| Chem. 11—Gen. Chem. (12MWF) (\$0.50)                                       |       | Hunter               | 3 $\frac{2}{3}$ |
| Chem. 12—Gen. Chem. (12TTh 2M) (\$0.50)                                    |       | Hunter               | 3 $\frac{2}{3}$ |
| Chem. 28s—Organic Chem. (2-6TTh) (\$0.50)                                  |       | Mitchell             | 4               |
| Chem. 33s—Quantitative Analysis (\$0.50)                                   |       | Mitchell             | 2 $\frac{2}{3}$ |
| Econ. 23—Principles of Economics                                           |       | Ward                 | 2               |
| Econ. 24—Principles of Economics                                           |       | Ward                 | 2               |
| Econ. 104—Industrial Management                                            |       | Ward                 | 3               |
| Ed. 20.1s—Primary Reading                                                  |       | Sharpe               | 2               |
| Ed. 21.1s—Observ. & Practice Tchg. (\$1.00)                                |       | Sharpe               | 2               |
| Ed. 21.2s—Centers of Interest                                              |       | Sharpe               | 2               |
| Ed. 27.5s—Building of Programs                                             |       | Holleman             | 2               |
| Ed. 28.7s—Tchg. Music in Integrated Prog.                                  |       | Holleman             | 2               |
| Ed. 29.1s—Tchg. of Arith. in Upper Grades                                  |       | Holleman             | 2               |
| Ed. 31s—Centers of Interest, Int. Grades (\$1)                             |       | Willson              | 2               |
| Ed. 38—Educational Psychology                                              |       | Tate                 | 3               |
| Ed. 39—Principles of Secondary Ed.                                         |       | Wright               | 3               |
| Ed. 40a, b, c—Elementary Education                                         |       | Holler, Ott, & Staff | 6               |
| Ed. 41—Arts & Crafts for Grade Teach. (\$1.00)                             |       | Willson              | 2               |
| Ed. 65s—Leadership in Com. Recreation                                      |       | Kirchner             | 3               |
| Ed. 66s—Sch. Programs in Phys. Ed.                                         |       | Kirchner             | 3               |
| Ed. 150 CCC—Audio-Visual Aids<br>(No credit for less than 3 weeks)         |       | Milner               | 1               |
| Elect. 30s—Electric Machines (2-4TTh)                                      |       | Philpot              | 2 $\frac{2}{3}$ |
| Elect. 30.1s—Rural Electrification<br>(See page 18 Summer School Catalog)  |       | Philpot              | 2               |
| Elect. 37s—Elect. Welding (2-5MW) (Lab. \$5)                               |       | Philpot              | 3               |
| Eng. 15—Comp. & Am. Lit.                                                   |       | Bradley or Lane      | 3               |
| Eng. 16—Comp. & Am. Lit.                                                   |       | Kinard or Lane       | 3               |
| Eng. 21—Major Poets, Age of Romanticism                                    |       | Kinard or            | 2               |
| Eng. 22—Major Poets, Victorian Age                                         |       | Lane                 | 2               |
| Eng. 24s—Children's Literature                                             |       | Willson              | 2               |
| Eng. 31—Public Speaking (See pg. 20 S.S. Cat.)                             |       | Bradley              | 2               |
| Eng. 32—Business Law                                                       |       | Bradley              | 2               |
| Eng. 58—Selected Masterpieces                                              |       | Kinard               | 2               |
| French 11s or 12s—Beginner's French                                        |       | Rhyne                | 2               |
| French 21s or 22s—Second Yr. French                                        |       | Rhyne                | 2               |
| German 11s or 12s—First Year German                                        |       | Rhyne                | 2               |
| Govt. 12—Am. Govt. & Political Parties                                     |       | Holmes               | 2               |
| Hist. 42—The Develop. of South Carolina                                    |       | Holmes               | 2               |
| Hist. 14—Am. Econ. & Social Hist.                                          |       | Holmes               | 2               |
| Ind. Arts 155s—Advanced Woodwork                                           |       | Marshall             | 2               |
| Ind. Arts. 155s CCC—Advanced Woodwork<br>(No credit for less than 3 weeks) |       | Marshall             | 1               |
| Ind. Arts 56s—Proj. in Woodwork                                            |       | Marshall             | 2               |
| Ind. Arts. 57s—Ind. Arts for Teachers                                      |       | Marshall             | 2               |
| Ind. Arts. 58s—Woodfinishing                                               |       | Marshall             | 2               |
| Lib. Sci. 35s—Teaching Library Use                                         |       | Graham               | 2               |
| Lib. Sci. 40sb—Adm. of Sch. Libraries                                      |       | Graham               | 2               |
| Lib. Sci. 45sa—Cataloging & Class.                                         |       | Stevenson            | 2               |
| Lib. Sci. 45sb—Cataloging & Class.                                         |       | Stevenson            | 2               |

|                                                      |                        |                 |
|------------------------------------------------------|------------------------|-----------------|
| Math. 11—Plane Trig. ....                            | Hunter or              | 3               |
| Math. 12s—Col. Algebra & Anal. Geom. ....            | Martin                 | 3               |
| Math. 23—Dif. Calculus ....                          | Hunter or              | 3               |
| Math. 24—Int. Calculus ....                          | Martin                 | 3               |
| M.E. 22—Materials of Engineering ....                | Philpot                | 2               |
| M.E. 31—Mechanics (Statics) (or C.E. 31) ....        | Sams                   | 3               |
| M.E. 34—Mech. Engr. ....                             | Sams                   | 3               |
| Phys. 11—Gen. Phy. (9MWF, 2-4TWTh) ....              | Huff                   | 3 $\frac{3}{8}$ |
| Phys. 12—Gen. Phy. (9MWF, 2-4TWTh) ....              | Huff                   | 3 $\frac{3}{8}$ |
| Phys. 21—Gen. Phy. ....                              | Brown                  | 4               |
| Phys. 22—Elect. & Mag. ....                          | Brown                  | 4               |
| Phys. 23 & 24—Lab. Phys. ....                        | Brown                  | 1               |
| Phys. 33s—Astronomy ....                             | Huff                   | 2               |
| P.H. 42s—Poultry Prod. & Mgt.* ....                  | Ringrose               | 2               |
| Spanish 11s—Beginner's Spanish ....                  | Clark                  | 2               |
| (Also open to those desiring no credit)              |                        |                 |
| Spanish 21s—Intermediate Spanish ....                | Clark                  | 2               |
| Soc. Sci. 41s—Ind. Sociology ....                    | Booker                 | 2               |
| Typewr. 1—Jr. & Sr. H. S. Typing (Tuition \$8)§ .... | Hudgens                | 0               |
| Typewr. 30s—Typewr. & Office Procedure ....          | Hudgens                | 3               |
| Typewr. 40s—Adv. Typewr. ....                        | Hudgens                | 3               |
| Voc. Ed. 33—Org. of Courses of Study ....            | Brock or               | 3               |
| Voc. Ed. 35s—Tchg. of Art. Metal Work ....           | Brock or               | 2               |
| Voc. Ed. 40s—Pract. Tchg. in Ag. ....                | Monroe & Alexander     | 5               |
| (July 24-Sept. 9)                                    |                        |                 |
| Voc. Ed. 42s—Meth. in Ag. Ed. ....                   | Monroe                 | 3               |
| (July 24-Sept. 9)                                    |                        |                 |
| Voc. Ed. 98r—Auto Mechanics ....                     | Lombard                | 2               |
| Voc. Ed. 104—Part-time Instr. in Agric.* ....        | Crandall               | 2               |
| Voc. Ed. 105—Org. & Cond. F.F.A. Chapters* ....      | Bowen                  | 2               |
| Voc. Ed. 106—Research in Ag. Ed.*** ....             | White                  | 2               |
| Voc. Ed. 107—All-day Instr. in Agric.*** ....        | White                  | 2               |
| Voc. Ed. 120r—Phil. of Voc. Ed.* ....                | Struck, Dennis, Booker | 2               |
| Voc. Ed. 122r—Research in Ind. Ed. ....              | Turner                 | 2               |
| Voc. Ed. 123r—School Administration ....             | Turner                 | 2               |
| Voc. Ed. 125r—Voc. & Ed. Guidance ....               | Tate                   | 2               |
| Voc. Ed. 125 CCC—Voc. Guidance ....                  | Tate                   | 1               |
| (No credit for less than 3 weeks)                    |                        |                 |
| Voc. Ed. 126r—Coordination of Voc. Ed. Prog. ....    | Booker                 | 2               |
| Voc. Ed. 127s—Trends in Ind. Arts. Ed.*** ....       | Houchens               | 2               |
| Voc. Ed. 132r—Job Analysis ....                      | Adams & Booker         | 2               |
| Weld. 36s—Gas Welding (2-5MW) (Lab. \$5) ....        | Philpot                | 3               |
| W.D. 12—Gen. Textiles (Tuition \$8)† ....            | McKenna                | 2 $\frac{3}{8}$ |
| W.D. 21s-22s—Design ....                             | McKenna                | 2               |
| W.D. 23s-35s—Plain & Fancy Loomfixing (\$8)† ....    | McKenna                | 2 $\frac{3}{8}$ |
| W.D. 31s-32s—Dobby Design ....                       | McKenna                | 2               |
| Y.M. 29s—Cotton Classing (\$15.00) ....              | Person                 | 2               |
| (June 19-July 14)                                    |                        |                 |

\*June 12-June 30.

\*\*Extra hours given in parenthesis following title.

\*\*\*July 3-22.

†Laboratory and materials fees are given, where charged, in parenthesis following title of course.

§If taken alone \$10.00.

## PART VII—STUDENT REGISTER

### WAR DEPARTMENT TRAINING STAFF

|                                    |                              |
|------------------------------------|------------------------------|
| Lieutenant Colonel Herbert M. Pool | Infantry                     |
| Major Glenn D. Hufford             | Infantry                     |
| Major Russell F. Walthour          | Infantry                     |
| Major Albert H. Dumas              | Infantry                     |
| Major David E. Barnett             | Infantry                     |
| Major Jules V. Sims                | Infantry                     |
| Sergeant Harry J. Wilkinson        | Detached Enlisted Men's List |
| Sergeant Henry S. Heath            | Detached Enlisted Men's List |
| Sergeant Kenney R. Helton          | Detached Enlisted Men's List |
| Sergeant Otis A. DeMott            | Detached Enlisted Men's List |

### CADET BRIGADE ORGANIZATION

|                             |                         |
|-----------------------------|-------------------------|
| Colonel A. D. Graham        | Brigade Commander       |
| Colonel C. E. Littlejohn    | Brigade Executive       |
| Major W. I. Bouton          | Brigade Adjutant        |
| Captain C. V. Wray          | Brigade Supply Officer  |
| Captain W. M. McGinty       | Brigade Chaplain        |
| First Lieutenant B. B. Hart | Brigade Mess Officer    |
| Master Sergeant D. J. Ross  | Brigade Sergeant Major  |
| Master Sergeant S. E. Owen  | Brigade Supply Sergeant |

### BAND

#### *Captain*

Mulling, F. J.

#### *First Lieutenants*

Elmore, F. B. (\*)  
Gramling, R. M.  
Hawkins, T. P.  
Pearman, J. N.

#### *Second Lieutenants*

Berry, M. M.  
Cheatham, F. C.  
Lawton, J. G.  
McClure, J. B.  
McKnight, J. C.  
Turner, G. M.

#### *First Sergeant*

Dukes, R. C.

#### *Supply Sergeant*

Henderson, J. R.

#### *Sergeants*

Austel, J. R.  
Belue, H. P.  
Benfield, J. K.  
Bennett, W.  
Bonnette, G. H.  
Brooks, A. L.  
Coakley, F. H.  
Coakley, G. E.  
Correll, H. M.  
Culler, J. C.  
Myers, J. B.  
Reid, G. F.  
Rhodes, T. M.  
Wheeler, G. C.  
Young, E. L.

#### *Corporals*

Adickes, G. C.  
Coleman, H. A.  
Cox, J. L.  
Donley, W. H.  
Haddon, F. J.  
Jones, R. H.  
Spearman, F. A.

(\*) Indicates Company Executive Officer.



## REGIMENTAL ORGANIZATION

## FIRST REGIMENT

|                                   |                           |
|-----------------------------------|---------------------------|
| Colonel C. B. Lawton              | Regimental Commander      |
| Lieutenant Colonel G. M. McMillan | Regimental Executive      |
| Captain G. C. Commander           | Regimental Adjutant       |
| Captain M. R. Lawton              | Regimental Supply Officer |
| First Lieutenant G. W. McClure    | Regimental Chaplain       |
| Master Sergeant W. E. Hallman     | Regimental Sergeant Major |
| Staff Sergeant J. C. Swearingen   | Regimental Color Sergeant |
| Staff Sergeant J. M. Neil         | Regimental Color Sergeant |

## BATTALION ORGANIZATION

## FIRST BATTALION—FIRST REGIMENT

|                                 |                     |
|---------------------------------|---------------------|
| Lieutenant Colonel P. H. Nelson | Battalion Commander |
| Captain E. R. Fenstermacher     | Battalion Executive |
| First Lieutenant T. A. Able     | Battalion Adjutant  |
| First Lieutenant P. T. Garrett  | Supply Officer      |
| Technical Sergeant R. R. McLeod | Sergeant Major      |

## Company A-1

## Company B-1

## Company C-1

*Captains*

McKeown, H.

Gillespie, R. M.

Forester, R. C.

*First Lieutenants*

Cason, L. L.  
 Lindsay, R. J.  
 Richardson, J. O. W.  
 Sharpe, W. B. (\*)

Ackerman, M. W.  
 Anderson, C. E.  
 Farmer, J. G. (\*)  
 Orr, J. L.

Moon, H. D.  
 Fuseler, H. W.  
 Frazier, J. R.  
 Webb, H. W. (\*)

*Second Lieutenants*

Bozard, L. S.  
 Brady, H. G.  
 Fellers, L. Q.  
 Greene, W.  
 Harley, T. R.  
 Hunter, J. C.  
 Moorer, D. F.  
 Woods, T. D.

Campbell, W. F.  
 Collins, W. D.  
 Gaillard, W. S.  
 Gardner, E. G.  
 Mazinski, R. T.  
 Murph, J. L.  
 Scarborough, R. W.  
 Schmidt, J. E.  
 Woodward, L. J.

Acker, H. L.  
 Craven, F. M.  
 Denny, H. S.  
 Kennedy, H. M.  
 McPhail, F. E.  
 Parrish, J. W.  
 Rutland, L. E.  
 Waters, G. H.

*First Sergeants*

Burley, B. B.

Dent, H. N.

Bradford, H.

*Supply Sergeants*

Simpson, H. V.

Klugh, T. S.

Sullivan, J. W.

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 (\*) Indicates Company Executive Officer

*Sergeants*

|                  |                   |                   |
|------------------|-------------------|-------------------|
| Agnew, J. C. P.  | Boylston, W. L.   | Arant, T. D.      |
| Babb, J. M.      | Brown, R. H.      | Ashford, J. F.    |
| Barton, L. M.    | Compton, G. W.    | Breland, W. D. D. |
| Brockman, W. D.  | Dunlap, G. M.     | Dicks, N. R.      |
| Gardner, W. A.   | Gianpalo, N. J.   | Ehrhardt, J. S.   |
| Gore, J. P.      | Hempstead, R. L.  | Foster, H. B.     |
| Hickerson, R. A. | Hite, C. W.       | Henderson, W. N.  |
| McLean, W. K.    | Holroyd, R. E.    | King, A. P.       |
| Pitts, J. J.     | Huckaby, J. P.    | McAdams, D. A.    |
| Wham, G. S.      | Hughey, J. D.     | Moore, W. E.      |
|                  | McLaughlin, J. J. | Nickles, W. B.    |
|                  | Sims, J. J.       | Reaves, A. L.     |

*Corporals*

|                   |                 |                  |
|-------------------|-----------------|------------------|
| Albergotti, W. M. | Anthony, S. H.  | Armstrong, W. S. |
| Alman, M. H.      | Bailey, W. M.   | Barlow, J.       |
| Dorn, O. G.       | Ferguson, J. G. | Fortunato, F. N. |
| Godfrey, J. H.    | Hammond, C. E.  | Grayson, J. H.   |
| Hughes, S. C.     | Jessen, H. H.   | Hardee, E. S.    |
| Jaudon, R. H.     | Kalwitz, M. F.  | Nickles, L. H.   |
| Wilson, J. M.     | Kay, C. W.      | O'Dell, D. G.    |
|                   | Kirvin, W. W.   | Robinson, W. A.  |

*BATTALION ORGANIZATION**SECOND BATTALION—FIRST REGIMENT*

|                                      |                     |             |
|--------------------------------------|---------------------|-------------|
| Lieutenant Colonel L. S. Horton----- | Battalion Commander |             |
| Captain J. L. Almeida-----           | Battalion Executive |             |
| First Lieutenant B. L. Webb-----     | Battalion Adjutant  |             |
| First Lieutenant J. B. McFadden----- | Supply Officer      |             |
| Technical Sergeant R. R. Pearce----- | Sergeant Major      |             |
| Company E-1                          | Company F-1         | Company G-1 |

*Captains*

|             |                |              |
|-------------|----------------|--------------|
| Hunt, F. M. | Moorman, R. W. | Jones, C. L. |
|-------------|----------------|--------------|

*First Lieutenants*

|                  |                 |                   |
|------------------|-----------------|-------------------|
| Darwin, D. P.(*) | Copley, W. M.   | Adams, P. H.      |
| Mappus, W. A.    | Payne, J. E.(*) | Embodry, C. F.(*) |
| Pender, M. T.    | Sharpe, R. G.   | Foster, W. W.     |
|                  | Zeigler, C. M.  | Jolly, G. C.      |

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(\*) Indicates Company Executive Officer

*Second Lieutenants*

Baker, J. M.  
Boliver, W. C.  
Fellers, R. C.  
Hardee, J. C.  
Harris, H. L.  
Hendricks, G. H.  
Huff, R. B.  
Jackson, W. L.  
Johnson, H. A.  
Johnson, L. M.  
McGowan, S. B.  
Mills, W. L.  
Paulling, B. M.  
Todd, R.  
Williams, S. B.

Bryant, L.  
Ferguson, H. E.  
Hunter, R. V.  
Moore, G. S.  
Smith, T. L.

Agnew, R. E.  
Cochran, R. P.  
Fleetwood, H. G.  
Harter, J. R.  
Hawkins, A.  
Jeffcoat, B. D.  
Johnson, J. W.  
O'Neal, J. B.  
Shirley, J. A.  
Winfield, J. A.

*First Sergeants*

Dunham, E. W.

Brady, W. P.

Davis, S. E.

*Supply Sergeants*

Sellers, A. R.

Buchanan, H. L.

Mace, J. S.

*Sergeants*

Ackis, H. S.  
Bussey, W. W.  
Coward, W. A.  
DuBose, E. E.  
Dudley, A. C.  
Glenn, J. P.  
Harper, S. D.  
Horton, F. H.  
McFall, G. R.  
Parks, J. B.  
Pope, C. J.  
Stewart, T. H.  
Thornburg, R. W.  
Vickery, J. B.

Abee, R. B.  
Cameron, A. N.  
Floyd, G. W.  
Horton, J. I.  
Lachicotte, A. S.  
Lancaster, S.  
Pasley, J. H.  
Richardson, J. H.  
Sanders, W. F.  
Stanford, M. C.  
Webb, H. W.  
Yarid, S. K.

Adams, G. W.  
Allen, J. L.  
Brazell, D. E.  
Dukes, J. L.  
Evans, J. H.  
Ginn, W. N.  
Gore, N. V.  
Nalley, A. C.  
Rankin, J. A.  
Smith, E. H.  
Wilson, C. L.  
Wily, R. R.

*Corporals*

Barnes, F. S.  
DuBose, F.  
Gamble, J. B.  
Higgins, J. C.  
Johnston, A. E.  
Lesesne, C. B.  
Ligon, W. S.  
Perry, R. E.  
Seyle, F. W.

Blackwell, B. E.  
Cargill, T. C.  
Goblet, G. F.  
Hubbard, J. C.  
Jameson, L. H.  
Pickens, R. E. L.  
Roof, R. C.  
Thomas, A. E.  
Walden, A. R.

Barton, J. H.  
Bird, J. P.  
Dusenberry, J. D.  
Hunter, M. R.  
Jones, S. J.  
Young, J. G.

## BATTALION ORGANIZATION

## THIRD BATTALION—FIRST REGIMENT

|                                       |                     |
|---------------------------------------|---------------------|
| Lieutenant Colonel K. W. Kolb-----    | Battalion Commander |
| Captain J. C. Crumbley-----           | Battalion Executive |
| First Lieutenant A. T. Simpson-----   | Battalion Adjutant  |
| First Lieutenant R. G. Forsythe-----  | Supply Officer      |
| Technical Sergeant E. O. McMahan----- | Sergeant Major      |

## Company I-1

## Company K-1

## Company L-1

*Captains*

Sanders, A. W.

Jones, J. B.

Crews, M. S.

*First Lieutenants*

Carson, C. R.

Gilliam, L. G.

Cathcart, T. M.

Davis, T. F.

Smith, D. T.

Levin, J. H. (\*)

Gage, G. W. (\*)

Ward, H. E.

Macartney, O. K.

Wells, F. E. (\*)

Rivers, P. F.

*Second Lieutenants*

Cranford, M. H.

Caughman, R. H.

Bull, L. H.

Dixon, J. S.

Coggins, A. E.

Lee, J. B.

Heriot, J. D.

Creel, L. E.

Oates, W. J.

Hinson, L. C.

McMakin, G. C.

Vassey, H. M.

Irby, G. S.

Snipes, G. L.

Wise, W. R.

*First Sergeants*

Cline, W. E.

McAlister, P. W.

Crayton, T. W.

*Supply Sergeants*

Lowe, W. H.

Jenkins, M. I.

Bethea, C. J.

*Sergeants*

Balfour, F. H.

Anderson, R. M.

Bethea, T. C.

Bischoff, R. J.

Carter, C. L.

Black, T. H.

Carrigan, E. W.

Carter, J. D.

Blackmon, C. R.

Dunham, C. F.

Dunn, A. B.

Cottingham, J. E.

Ewart, J. A.

Fulmer, R. B.

Cox, H. C.

Goodson, T. E.

Gramling, F. W.

Eaddy, C. M.

Groce, L. A.

Holley, E. B.

Early, W. F.

McKnight, B. G.

Kerchmar, A.

Fletcher, B. A.

Parrish, B. C.

Singletary, J. B.

Gregg, H. R.

Peterson, T. E.

Walker, M. E.

Gregory, J. F.

Rankin, J. T.

Wyndham, F. E.

Osteen, R. T.

Shirley, G. E.

Potter, C. L.

Turner, C. A.

Propst, R. C.

Wilson, H. S.

Thackston, J. E.

Woodward, J. E.

(\*) Indicates Company Executive Officer



*Corporals*

|                |                 |                 |
|----------------|-----------------|-----------------|
| Bell, J. J.    | Belue, F. W.    | Benjamin, I.    |
| Fennell, R. C. | Buist, B.       | Clark, W. M.    |
| King, B. N.    | Galway, J. W.   | Cope, G. B.     |
| Lane, J. V.    | Irby, W. C.     | Howard, C. R.   |
| Poe, W. N.     | Mathias, F. T.  | Leonard, B. R.  |
|                | O'Brien, G. J.  | Marvin, O. D.   |
|                | Rabb, J. M.     | Miley, G. F.    |
|                | Ratcliff, N. B. | Morgan, C. C.   |
|                | Robins, J. E.   | Thompson, J. L. |

*REGIMENTAL ORGANIZATION*

## SECOND REGIMENT

|                                  |                           |
|----------------------------------|---------------------------|
| Colonel J. R. Liles              | Regimental Commander      |
| Lieutenant Colonel J. F. Gray    | Regimental Executive      |
| Captain E. K. Burdette           | Regimental Adjutant       |
| Captain C. E. Spires             | Regimental Supply Officer |
| First Lieutenant L. R. Arrington | Regimental Chaplain       |
| Master Sergeant T. B. Rutledge   | Regimental Sergeant Major |
| Staff Sergeant A. H. Driver      | Regimental Color Sergeant |
| Staff Sergeant D. B. Wentzel     | Regimental Color Sergeant |

*BATTALION ORGANIZATION*

## FIRST BATTALION—SECOND REGIMENT

|                                 |                     |
|---------------------------------|---------------------|
| Lieutenant Colonel W. A. Rhyne  | Battalion Commander |
| Captain R. L. Ariail            | Battalion Executive |
| First Lieutenant C. H. Triplett | Battalion Adjutant  |
| First Lieutenant M. C. Propst   | Supply Officer      |
| Technical Sergeant F. E. Rogers | Sergeant Major      |

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| Company A-2 | Company B-2 | Company C-2 | Company D-2 |
|-------------|-------------|-------------|-------------|

*Captains*

|             |                 |                 |                 |
|-------------|-----------------|-----------------|-----------------|
| King, R. A. | Anderson, W. D. | Kerhulas, T. E. | Marshall, R. B. |
|-------------|-----------------|-----------------|-----------------|

*First Lieutenants*

|                 |                     |                 |                       |
|-----------------|---------------------|-----------------|-----------------------|
| DeMai, N.       | Anderson, G. J.     | Cook, H. L. (*) | Bryant, R. H.         |
| Mays, H. B. (*) | Dunn, L. E.         | Morgan, P. E.   | Stoudemire, G. A. (*) |
| Shuler, G.      | Garrison, J. S. (*) | Sutton, A. D.   | Wright, M. E.         |

*Second Lieutenants*

|                 |                |                 |
|-----------------|----------------|-----------------|
| Ferguson, T. B. | Redfern, I. C. | Rushing, B. T.  |
| Knox, H. B.     |                | Van Wyck, W. O. |
| West, E. C.     |                |                 |

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(\*) Indicates Company Executive Officer

*First Sergeants*

|                |                |                 |              |
|----------------|----------------|-----------------|--------------|
| Freeman, E. A. | Ficklin, M. T. | Seabrook, P. D. | Henry, G. C. |
|----------------|----------------|-----------------|--------------|

*Supply Sergeants*

|               |                |                |                  |
|---------------|----------------|----------------|------------------|
| Lytton, K. G. | Jackson, C. C. | Jenkins, S. T. | O'Shields, W. R. |
|---------------|----------------|----------------|------------------|

*Sergeants*

|                   |                      |                   |                  |
|-------------------|----------------------|-------------------|------------------|
| Beaudrot, C. R.   | Berry, H. S.         | Anderson, B. W.   | Barron, J. I.    |
| Beaudrot, J. L.   | Dobson, C. B.        | Bolt, W. H.       | Burgess, A. F.   |
| Beckett, T. A.    | Hollingsworth, C. K. | Bull, B. R.       | Crouch, H. J.    |
| Connell, N. G.    | Kivett, T. L.        | Copeland, H. J.   | Greene, C. L.    |
| Cox, A. Z.        | McCoy, W. T.         | Coyle, B. M.      | Hamilton, J. E.  |
| Crocker, T. J.    | Vereen, L. C.        | Croxson, E. F.    | Howard, J. W.    |
| Dellinger, F. W.  |                      | Fulmer, H. P.     | Johnson, R. C.   |
| Ford, Z. T.       |                      | Godsey, J. C.     | McKeown, W. H.   |
| Herrington, C. L. |                      | Hill, D. N.       | Richbourg, W. L. |
| Johnson, A. B.    |                      | Jones, J. D.      | Shirley, L.      |
| Martin, L. C.     |                      | Kelly, J. G.      | Smith, D. W.     |
| Poole, C. B.      |                      | McIntosh, W. A.   | Wigington, W. H. |
|                   |                      | Robinson, C.      | Wright, C. R.    |
|                   |                      | Smith, P. F.      |                  |
|                   |                      | Williamson, S. A. |                  |
|                   |                      | Wilson, H. B.     |                  |
|                   |                      | Zerbst, H. C.     |                  |

*Corporals*

|                |                 |                |                |
|----------------|-----------------|----------------|----------------|
| Belk, G. H.    | Bell, H. F.     | Bowers, D. G.  | Brooks, Q. P.  |
| Brown, J. C.   | Burnette, H. W. | Fleeman, B. H. | Brunson, W. L. |
| Elledge, L. D. | Epting, C. E.   | Fowler, J. D.  | Garfinkel, N.  |
| Gleason, R. N. | Glenn, D. M.    | Gage, T. W.    | Glenn, J. D.   |
| Huggins, F. E. | Hughes, R. A.   | Glenn, J. D.   | Harris, W. M.  |
| McKee, L. G.   | Palles, M. D.   | Sams, B. B.    | James, B. M.   |
| McLeod, R. K.  | Parker, T. M.   | Whall, R. F.   | Richard, L.    |
| Starnes, J. O. |                 |                | Rogers, D. C.  |
| Wright, E. E.  |                 |                |                |

*BATTALION ORGANIZATION*

## SECOND BATTALION—SECOND REGIMENT

|                                     |                     |
|-------------------------------------|---------------------|
| Lieutenant Colonel J. M. Stallworth | Battalion Commander |
| Captain J. C. Lemmon                | Battalion Executive |
| First Lieutenant S. T. Keel         | Battalion Adjutant  |
| First Lieutenant E. P. Cleveland    | Supply Officer      |
| Technical Sergeant L. D. Dreisbach  | Sergeant Major      |

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| Company E-2 | Company F-2 | Company G-2 | Company H-2 |
|-------------|-------------|-------------|-------------|

*Captains*

|                |              |                 |             |
|----------------|--------------|-----------------|-------------|
| Richardson, T. | Sells, C. K. | McLaurin, C. H. | Wade, W. B. |
|----------------|--------------|-----------------|-------------|

*First Lieutenants*

|                   |                     |                    |                  |
|-------------------|---------------------|--------------------|------------------|
| Bagnal, H. T.     | Irick, E. F.        | Furtick, O. K.     | Farnum, C. O.    |
| Kearse, W. H. (*) | Little, J. F.       | Harrison, B. S.    | Hammond, J. G.   |
| Salley, W. B.     | McLaurin, K. F. (*) | Trexler, B. D. (*) | Smith, G. L. (*) |

*Second Lieutenants*

|                |              |                 |                  |
|----------------|--------------|-----------------|------------------|
| Manning, L. W. | Hurst, F. M. | Epting, S. W.   | Bradbury, D. W.  |
|                |              | Robinson, J. E. | Parrott, D. L.   |
|                |              |                 | Stribling, S. P. |
|                |              |                 | Thomas, R. L.    |

*First Sergeants*

|               |             |               |               |
|---------------|-------------|---------------|---------------|
| Holmes, F. S. | Ross, E. A. | Maness, L. E. | Holley, F. L. |
|---------------|-------------|---------------|---------------|

*Supply Sergeants*

|               |               |               |               |
|---------------|---------------|---------------|---------------|
| Carder, W. H. | Sparks, L. M. | Kearse, F. M. | Fairey, P. W. |
|---------------|---------------|---------------|---------------|

*Sergeants*

|                 |                  |                 |                     |
|-----------------|------------------|-----------------|---------------------|
| Benjamin, G. F. | Bennett, E. F.   | Benton, D. A.   | Bickley, C. E.      |
| Bodie, K. J.    | Berry, R. J.     | Darby, W. M.    | Cooner, A. W.       |
| Boland, T. S.   | Boswell, R. C.   | Guyton, R. A.   | Holtzendorff, P. B. |
| Butler, E. C.   | Calhoun, R. A.   | LeMaster, H. L. | Settle, H. H.       |
| Derrick, W. G.  | Graves, C. C.    | Pelham, W. E.   |                     |
| Hinnant, F. K.  | Hall, R. T.      |                 |                     |
| Kirby, G. W.    | Huntley, D. M.   |                 |                     |
| Lever, J. J.    | Jackson, E. C.   |                 |                     |
| McMaster, J. F. | Martin, J. L.    |                 |                     |
| Morris, L. D.   | Oricko, M. A.    |                 |                     |
| Powers, J. T.   | Simpson, D. N.   |                 |                     |
| Ross, G.        | Simpson, J. L.   |                 |                     |
| Smith, W. E.    | Whisenant, J. E. |                 |                     |
| Smith, W. H.    | Zeigler, J. S.   |                 |                     |
| Wheeler, R. F.  |                  |                 |                     |

*Corporals*

|                 |                 |                |                 |
|-----------------|-----------------|----------------|-----------------|
| Burgess, G. H.  | Campbell, C. M. | Clowney, J. Y. | Crawford, K. L. |
| Cannon, O. B.   | Carson, W. H.   | Colvin, J. S.  | Goodman, J. L.  |
| Garrett, W. C.  | Garrison, T. E. | Gasque, J. S.  | Trimmier, J. D. |
| Genet, G. R. F. | Gettys, B. W.   | Long, R. F.    | Webster, F. S.  |
| Heinsohn, J. H. | Hilburn, J. E.  | Rogers, J. S.  | West, F. T.     |
| Rogers, S. S.   | Klinck, J. M.   | Sherard, J. H. | White, J. R.    |
| Roles, A. W.    | Rumph, W. P.    | Simpson, J. H. | Williams, G. L. |
| Thames, F. H.   | Seigler, J. P.  | Skardon, J. W. | Williams, L. A. |
|                 | Simpson, J. F.  | Smith, E. N.   | Watson, J. B.   |

(\*) Indicates Company Executive Officer

## BATTALION ORGANIZATION

## THIRD BATTALION—SECOND REGIMENT

|                                        |                     |
|----------------------------------------|---------------------|
| Lieutenant Colonel S. C. Hunt.....     | Battalion Commander |
| Captain D. R. May.....                 | Battalion Executive |
| First Lieutenant B. F. Hester.....     | Battalion Adjutant  |
| First Lieutenant G. M. Miller.....     | Supply Officer      |
| Technical Sergeant J. D. Sterghos..... | Sergeant Major      |

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| Company I-2 | Company K-2 | Company L-2 | Company M-2 |
|-------------|-------------|-------------|-------------|

*Captains*

|                 |               |              |                  |
|-----------------|---------------|--------------|------------------|
| Ragsdale, W. J. | Quantz, W. P. | Burns, P. J. | Okurowski, W. B. |
|-----------------|---------------|--------------|------------------|

*First Lieutenants*

|                    |                  |                  |                     |
|--------------------|------------------|------------------|---------------------|
| Bridges, M. L. (*) | Holcombe, R. O.  | Bateman, F. F.   | Houck, J. L.        |
| Blair, C. H.       | Poore, F. J. (*) | Bryan, C. B. (*) | Planck, C. G.       |
| Lane, C. S.        | Pugh, W. E.      | Newton, C. G.    | Williams, A. V. (*) |
| West, T. P.        | Truluck, J. W.   |                  |                     |

*Second Lieutenants*

|                 |                   |                  |                |
|-----------------|-------------------|------------------|----------------|
| Brewer, H.      | Burriss, T. M.    | Ballenger, P. C. | Earle, J. B.   |
| Chandler, W. O. | Jordan, W. W.     | Bell, W. M.      | Hackett, C. B. |
| Gray, F. F.     | Kirby, M. D.      | Bettis, J. R.    | Hanna, L. G.   |
| Ivey, J. D.     | Little, W. H.     | Grimball, T. P.  | Harper, J. J.  |
| Manning, W. H.  | Pruitt, S. H.     | Hunt, B. D.      | Hubbard, R. C. |
| Mills, F. C.    | Ross, H. J.       | Jones, H. C.     | Land, J. S.    |
| Padgett, C. A.  | Stewart, E. R.    | Marett, H. D.    | Mason, K. R.   |
| Shealy, M. C.   | Stokes, F. H.     | Oswald, H. C.    |                |
| Shealy, W. L.   | Summers, C. B.    | Mobley, F. B.    |                |
| Shelley, R. C.  | Wallace, J. W.    | Perna, F. J.     |                |
|                 | Yarborough, B. H. | Smith, M. T.     |                |
|                 |                   | Webb, G. R.      |                |
|                 |                   | Willis, M. D.    |                |

*First Sergeants*

|                  |               |                  |                 |
|------------------|---------------|------------------|-----------------|
| Desportes, J. A. | Taylor, J. O. | Pitchford, C. W. | Caughman, R. B. |
|------------------|---------------|------------------|-----------------|

*Supply Sergeants*

|               |                 |             |                 |
|---------------|-----------------|-------------|-----------------|
| Rhodes, A. P. | Ellis, W. H. N. | Hair, B. B. | Robinson, H. H. |
|---------------|-----------------|-------------|-----------------|

*Sergeants*

|                 |                |                 |               |
|-----------------|----------------|-----------------|---------------|
| Castles, J. F.  | Awtrey, W. E.  | Frank, M.       | Martin, E. F. |
| Davis, T. L.    | Copeland, N.   | Hill, H. B.     | Rankin, J. J. |
| Evans, J. H.    | Edmonds, J. L. | Lynch, R. M.    | Rodman, A. J. |
| Guyton, G. G.   | Ferris, L. R.  | McClam, R. L.   | Sharp, J. D.  |
| Hall, L. W.     | Gregory, J. L. | Robinson, D. H. | Smith, H. D.  |
| Kirkland, R. W. | Hancock, D. W. |                 |               |
| Lesesne, E. H.  | Painter, H. L. |                 |               |
| London, J. R.   | Ramsey, M. H.  |                 |               |
| McNair, H. S.   | Redfern, R. B. |                 |               |
| Matthews, W. B. | Walker, R. H.  |                 |               |

(\*) Indicates Company Executive Officer



|                    |                |
|--------------------|----------------|
| Osborne, J.        | Wearn, W. C.   |
| Rickenbaker, M. W. | Webster, S. R. |
| Shirley, J. A.     | Willis, J. W.  |
| Smith, W. T.       |                |
| Snead, A. J.       |                |
| Watson, J. F.      |                |

*Corporals*

|                  |                  |                |                   |
|------------------|------------------|----------------|-------------------|
| Coltrane, R. A.  | Dantzler, L. A.  | Davant, F. D.  | Beaty, A. R.      |
| Crosland, D.     | Dixon, J. H.     | Hobson, W. M.  | Hawkins, W. C.    |
| Goodman, M. R.   | Gorman, H.       | Merritt, W. E. | Holmes, H. H.     |
| Sottile, V. N.   | McConnell, F. F. | Tingle, A. M.  | Lindsay, H. N.    |
| Sosnowski, J. R. | Palmer, N. H.    | Todd, A. L.    | Watkins, M. D.    |
| Thomas, G. G.    | Strawhorn, H.    | Wilson, B. R.  | Watson, M. B.     |
| Tingle, W. B.    | Tarleton, H. J.  |                | Weinheimer, R. J. |
|                  | Way, H. G.       |                | White, T. P.      |

# GRADUATES OF 1939

## SCHOOL OF AGRICULTURE

### *Bachelor of Science Degree*

#### *Agriculture—Agricultural Economics Major*

|                              |            |                                 |            |
|------------------------------|------------|---------------------------------|------------|
| Robert Floyd Anderson.....   | Ninety Six | Nelie Rhett Davis, Jr.....      | Norway     |
| Charles Manly Aull.....      | Newberry   | Arthur Pelzer Gandy, Jr.....    | Hartsville |
| George Albert Brodie.....    | Wagner     | Richard Furman Jackson, Jr..... | Sumter     |
| Thomas Benton Young, Jr..... |            | Florence                        |            |

#### *Agriculture—Agronomy Major*

|                            |            |                             |           |
|----------------------------|------------|-----------------------------|-----------|
| Otis Lee Copeland, Jr..... | Ehrhardt   | Paul Smith Lawton.....      | Garnett   |
| Henry Mathew Crouch.....   | Saluda     | Norman Jeff McFaddin.....   | Sardinia  |
| Robert Bruce Fickling..... | Blackville | Daniel Carey Morgan.....    | Wellford  |
| Joe Burress Howie.....     | Anderson   | Joseph Lowman Shealy.....   | Batesburg |
| Champ McMillian Jones..... | Dacusville | Raymond Anderson Sloan..... | Marion    |
| John Drake Watson.....     |            | Florence                    |           |

#### *Agriculture—Animal Husbandry Major*

|                                    |       |                                |            |
|------------------------------------|-------|--------------------------------|------------|
| Thomas Ernest Bell, Jr.....        | Lydia | Bennett Lee Hendricks, Jr..... | Dacusville |
| William Desportes Coleman, Jr..... |       | Edwin Heriot Kerrison, Jr..... | Charleston |
| Bamberg                            |       | James Marvin Lynes.....        | Fairfax    |
| Joe Bean Palmer.....               |       | Sumter                         |            |

#### *Agriculture—Dairy Major*

|                            |             |                                 |            |
|----------------------------|-------------|---------------------------------|------------|
| Irvin John Foster.....     | Chesnee     | Luther McGruder Rhodes, Jr..... |            |
| William Thomas Foster..... | Chesnee     |                                 | Darlington |
| James Welborn Kelly.....   | Bishopville | William Alexander Rouse.....    | Luray      |

#### *Agriculture—Entomology Major*

|                                |  |                             |                |
|--------------------------------|--|-----------------------------|----------------|
| Frank Thompson Arnold, Jr..... |  | Ernest Charles Sturgis..... | Detroit, Mich. |
| Spartanburg                    |  | Willie Mole Terry, Jr.....  | Martin         |

#### *Agriculture—Horticulture Major*

|                                |            |                            |                 |
|--------------------------------|------------|----------------------------|-----------------|
| Charles David Ballenger.....   | Greer      | Paul Woodrow Langford..... | Blythewood      |
| Guy Eugene Blackwell.....      | Inman      | Joel McMillan.....         | Saluda          |
| John Francis Brailsford.....   | Orangeburg | *Clemons Carter Miley..... | Brunson         |
| *Henry Metteaux Covington..... |            | Frank Watkins O'Neal.....  | Anderson        |
| Bennettsville                  |            | Bruce Albert Peeling.....  | Harrisburg, Pa. |
| Roy Major Dobson.....          | Greer      | George Clifton Salvo.....  | Charleston      |
| *Roy James Ferree.....         | Campobello | Taze Leonard Senn.....     | Newberry        |
| James Waters Gibert.....       | Rodman     | Algernon Harvey Snell..... | Eloree          |

#### *Agricultural Engineering*

|                             |               |                                  |             |
|-----------------------------|---------------|----------------------------------|-------------|
| Carroll Eugene Hendrix..... | Greenville    | Mitchell Randolph Powers.....    | Marion      |
| Henry Keller Herlong.....   | Spartanburg   | Francis Herbert Scarborough..... |             |
| Wilmer L. Lee.....          | Hamer         |                                  | Bishopville |
| Daniel Townsend Pope.....   | Edisto Island | Blynn Edgar Scott.....           | Spartanburg |

## SCHOOL OF CHEMISTRY

### *Bachelor of Science Degree Chemistry*

|                                    |         |                                |               |
|------------------------------------|---------|--------------------------------|---------------|
| *Thomas Rutherford Bainbridge..... |         | Elijah Wardlaw Griffin.....    | Belton        |
| Savannah, Ga.                      |         | Fletcher Langley Moore.....    | Florence      |
| Stanley Jeffrey Boyd.....          | Laurens | *Max Montague Nichols, Jr..... |               |
| Lawrence Taylor Garick.....        | Hopkins |                                | Savannah, Ga. |
| Henry Ayer Raysor.....             |         | Greenville                     |               |

#### *Chemistry and General Science*

|                          |           |
|--------------------------|-----------|
| *Norwood Rufus Page..... | Lake View |
|--------------------------|-----------|

\*With honor.

## SCHOOL OF ENGINEERING

*Bachelor of Science Degree  
Architecture*

|                              |                              |             |
|------------------------------|------------------------------|-------------|
| William Ernest Brackett, Jr. | Edward Percy Guerard         | Columbia    |
| Hendersonville, N. C.        | William Manchester Hudson    |             |
| William Aiken Carlisle       |                              | Spartanburg |
| Paavo Carlson                | William Lucas Lafaye         | Columbia    |
| *Abel Hugh Chapman, Jr.      | Perry Earle Lee, Jr.         | Greenville  |
| Robert Moorehead Geer        | Claude Lawrence Vaughan, Jr. |             |
|                              | Clarkesville, Ga.            |             |

*Chemical Engineering*

|                     |            |                    |            |
|---------------------|------------|--------------------|------------|
| James Harold Bracey | Columbia   | *Robert Hester     | St. George |
| Henry McLean Cooper | Charleston | John Jones Kirtton | Cades      |
| Jack Lee Wilks      | Charleston |                    |            |

*Bachelor of Civil Engineering Degree*

|                               |               |                               |                   |
|-------------------------------|---------------|-------------------------------|-------------------|
| Edward Pershing Abrams        | Newberry      | Porrest Thomas Knox           | Norwood, Pa.      |
| Fred Harvey Hall Calhoun, Jr. |               | James Douglas Mackintosh, Jr. |                   |
|                               | Clemson       |                               | McClellanville    |
| Willis Stanford Cason         | Savannah, Gr. | James Benjamin Moore          | McColl            |
| David DeWitt Crosby           | Chester       | Gaston William Stanford       |                   |
| *Paul Glenn Ford              | Clover        |                               | Greensboro, N. C. |
| Claude Everette Johnson       | Newberry      | Russell Simmons Wolfe, II     | Orangeburg        |
| Leonard Franklin Jones        | Walhalla      | Robert Claude McCabe          | Kingstree         |

*Bachelor of Electrical Engineering Degree*

|                            |              |                                        |                |
|----------------------------|--------------|----------------------------------------|----------------|
| Ernest Otto Botts, Jr.     | Abbeville    | Benjamin Franklin McLeod               | Clio           |
| David Elbert Burress, Jr.  | Pendleton    | Peter Mattison Mahon                   | Calhoun Falls  |
| Louis Aaron Citron         | Columbia     | Priestley George Mims, Jr.             | Lamar          |
| Philip Nuell Drew          | Columbia     | William Boone Richardson Mitchell, Jr. |                |
| Harry Feinstein            | Clemson      |                                        | Charleston     |
| William Henry Frazier, Jr. | Dothan, Ala. | *William Clarence Seabrook, Jr.        |                |
| Arthur Rhett Garner, Jr.   | Timmonsville |                                        | Hazleton, Pa.  |
| Malcolm Cloud Johnson      | Cottageville | James Oliver Sweeny                    | Charleston     |
| John Martin Kee            | Rock Hill    | William Bright Terry                   | Mullins        |
| *Kenneth Jones McCown      | Anderson     | Robert William Watson                  | Spartanburg    |
| *Eugene Thompson McCurry   | Anderson     | William Alexander Way                  | Brunswick, Ga. |
|                            |              | Asa Palmer Whitmire                    | Six Mile       |

*Bachelor of Mechanical Engineering Degree*

|                                |                  |                             |                   |
|--------------------------------|------------------|-----------------------------|-------------------|
| Luther Rutherford Ambrose, Jr. |                  | Donald Marshall Hutchinson  | Columbia          |
|                                | Plantersville    | James Roy Martin, Jr.       | Anderson          |
| John Robert Bailey             | Florence         | Walter Kent Prause, Jr.     | Charleston        |
| Theodore John Boselli          | New York, N. Y.  | William Edward Summerbell   |                   |
| William Belton Boyle           | Sumter           |                             | Washington, D. C. |
| *James Clinton Cook, Jr.       | Sumter           | Loyal Ayres Williamson, Jr. |                   |
| *Charles Alexander Dewey, Jr.  |                  |                             | Ridgewood, N. J.  |
|                                | Asheville, N. C. | Joseph Martin Windham, Jr.  |                   |
| James Hughey Harrison          | Troy             |                             | Bartow, Fla.      |
| Robert Love Henry, Jr.         | Simpsonville     | Charles Woods, Jr.          | Savannah, Ga.     |
| Theodore Coe Heyward, Jr.      |                  | Leon Crouch Wright          | Columbia          |
|                                | Charlotte, N. C. |                             |                   |

## SCHOOL OF GENERAL SCIENCE

*Bachelor of Science Degree  
General Science*

|                             |            |                           |                  |
|-----------------------------|------------|---------------------------|------------------|
| Lucius Charles Bailes       | Anderson   | Thomas Glenn Howard       | Lyman            |
| Furman Gist Bobo            | Greenville | Frederick Hughes          | North Charleston |
| Frank Jackson Bryce         | Florence   | Ellerbe Pelham Johnstone  | Newberry         |
| Benjamin Oliver Cantey, Jr. | Sumter     | Thomas Oregon Lawton, Jr. | Garnett          |
| John Wallace Cathcart, II   | Winnsboro  | Howard Joseph McAlhany    | Branchville      |
| Alan Johnstone Coleman      | Aiken      | Robert Ryan McCrary       | Clinton          |

\*With honor.

|                               |                 |                                |                  |
|-------------------------------|-----------------|--------------------------------|------------------|
| Robert Wesley Coleman.....    | Hyman           | William Chamblee McGregor..... | Anderson         |
| James Frank Copeland, Jr..... | Timmons ville   | Watson Weakley Magee.....      | Nashville, Tenn. |
| James Coxe Covington, Jr..... | Columbia        | John Byrd Murphy.....          | Darlington       |
| Walter Thompson Cox, Jr.....  | Belton          | George Marshall Newman.....    | Charlotte, N. C. |
| Newell Dwight Crawford.....   | Clemson         | James Boyce Nickles.....       | Hodges           |
| Martin Crook Jr.....          | Spartanburg     | Elton Wesley Shepherd.....     | Savannah, Ga.    |
| Joseph Edward Dixon.....      | Columbia        | Stephen Lee Skardon.....       | Walterboro       |
| Frampton Wyman Durban.....    | Aiken           | Tom Frank Stanfield.....       | Cordova          |
| Hugh Abram Gilchrist.....     | Edgefield       | Thomas William Talbert.....    | Columbia         |
| Clell Agustus Goins.....      | Fitzgerald, Ga. | Hiram Philip Troy, Jr.....     | Elloree          |
| Joseph Heriot Guess.....      | Denmark         | Moore.....                     | Walterboro       |
| Henry Woodbury.....           |                 |                                |                  |

## SCHOOL OF TEXTILES

### *Bachelor of Science Degree*

|                             |                 |                             |                  |
|-----------------------------|-----------------|-----------------------------|------------------|
| Tally Doyle Fulmer.....     | Saluda          | Thomas Holmes Heatwole..... | Arlington, Va.   |
| Clifford James Gormley..... | Cranston, R. I. | Scott Philip Patterson..... | Seneca           |
| Robert Adams Guy.....       | Chester         | *Jacob K. Smith.....        | Patterson, N. J. |

### *Textile Engineering*

|                                   |               |                                    |               |
|-----------------------------------|---------------|------------------------------------|---------------|
| Harry Carlisle Avinger.....       | Orangeburg    | Josef Peden Maroney.....           | Fountain Inn  |
| Harold Webster Booser.....        | Columbia      | William Henry Monckton, Jr.....    | Columbia      |
| Ralph Welcome Boys.....           | Tuxedo, N. C. | James Benjamin Montgomery.....     | Spartanburg   |
| Richard Hammack Burton.....       | Anderson      | Benjamin Franklin Pearson, Jr..... | Savannah, Ga. |
| Fred Elms Culvern, Jr.....        | Kershaw       | Joel Hallman Radcliff.....         | Aiken         |
| Andrew Moffatt Evans.....         | Abbeville     | Harry Gould Salley.....            | Buffalo       |
| Harry Earl Foster.....            | Pendleton     | John Elliott Simkins, Jr.....      | Columbia      |
| James Blair Frazier.....          | Blair         | Albert Wyeth Smith, Jr.....        | Anderson      |
| William Franklin Gates, Jr.....   | Anderson      | Joseph Gordon Smith.....           | Clearwater    |
| Zack Gray.....                    | Gray Court    | John Edgar Sullivan.....           | Anderson      |
| William Thomas Henderson, Jr..... | Greenville    | John Nixon Talbert.....            | Troy          |
| William Pinckney Irwin.....       | Spartanburg   | William Harold Thackston.....      | Anderson      |
| Edwin McClain Jones.....          | Greenville    | Eber Hilliard Thomas, Jr.....      | Greenwood     |
| Bernard Hardin Keitt.....         | Newberry      | Fred Allen Thompson.....           | Williston     |
| Elliott Melville Loyless, Jr..... | Greenwood     |                                    |               |

### *Weaving and Designing*

|                               |               |                        |               |
|-------------------------------|---------------|------------------------|---------------|
| Robert Gordon Carson, Jr..... | Orangeburg    | Lee Edward Waters..... | Savannah, Ga. |
| Harry Hill Cosgrave, Jr.....  | North Augusta |                        |               |

## SCHOOL OF VOCATIONAL EDUCATION

### *Bachelor of Science Degree*

### *Vocational Agricultural Education*

|                                |               |                                |               |
|--------------------------------|---------------|--------------------------------|---------------|
| *Thomas Benjamin Ardis.....    | Dalzell       | Mayo Narvy Harmon.....         | Lexington     |
| Timothy Winston Barrineau..... | Lake City     | John Patrick Hayes.....        | Nichols       |
| Harris Lewis Beach.....        | Walterboro    | Floyd Drayton Johnson.....     | Saluda        |
| William Alton Beasley.....     | Norway        | Elder Hill Jones.....          | Nichols       |
| James Robert Blakely.....      | Ora           | James Matthew Kirk.....        | Heath Springs |
| Ludy James Blakely, Jr.....    | Ora           | Newton Ralph Lester.....       | Newberry      |
| Hoyt Ulmer Bookhart, Jr.....   | Orangeburg    | John Barr Lipscomb.....        | Ninety Six    |
| Rhett Montgomery Bratton.....  | Gaffney       | William Folk Miley, Jr.....    | Brunson       |
| Ralph Wendell Bridge.....      | Clemson       | Lester Laneau Miller.....      | Hamer         |
| William Owen Cofer.....        | Wagner        | Paul Willard Nichols.....      | Saluda        |
| William Smith Coleman.....     | Anderson      | Curtis William Pennington..... | Matthews, Ga. |
| Pickens Allison Gantt.....     | Jefferson     | Francis Lesly Rawl.....        | Lykesland     |
| John Louis Gaskins.....        | Timmons ville | Herbert Jeter Thomas.....      | Hodges        |
| Harold Cleveland Gibson.....   | Greenville    | Roy Claude Thomas.....         | Lamar         |
| Johnnie Rhondell Grantham..... | Dillon        | Victor Van Vickery.....        | Central       |
| Fred Pierce Guerry, Jr.....    | Kingstree     | Philip Spigener Watson.....    | Ridge Spring  |
| Kennett Sparks Harmon.....     | Gaffney       | Yates Walter Wyant.....        | Ninety Six    |

\*With honor.



*Education*

Philip Bartholomew Chovan, William Clifton Wiles-----Columbia  
Bethlehem, Pa.

*Industrial Education*

|                                        |                                       |
|----------------------------------------|---------------------------------------|
| Joe Fletcher Anderson-----Edgefield    | Burrel Franklin Newman-----McBee      |
| Carroll Furman Ballentine---Prosperity | Walter Bryan Northrup----Springfield  |
| Robert Allen Banister-----Greenwood    | Horace Charles Parker----Crocketville |
| Laurence Asbury DeLoach---Lowndesville | Heber Venable Traywick----Cameron     |
| Davis Gregory Hughes-----Union         | James Tinsley Whitney-----Union       |
| William Brux Zeigler-----Florence      |                                       |

## PROFESSIONAL DEGREE OF ELECTRICAL ENGINEER

Norman Frederick Rode  
College Station, Tex.

## PROFESSIONAL DEGREE OF MECHANICAL ENGINEER

|                                           |                                         |
|-------------------------------------------|-----------------------------------------|
| Edwin Jones Freeman-----Clemson           | Paul Lindsey Tollison Plainfield, N. J. |
| Earle Monroe Morecock<br>Rochester, N. Y. |                                         |

## FORTY-THIRD COMMENCEMENT, JUNE 1939

*Baccalaureate Sermon*

THE REVEREND E. GIBSON DAVIS

*Pastor of the First Baptist Church*

Spartanburg, South Carolina

*Address to Graduating Class*

THE HONORABLE BURNET R. MAYBANK

*Governor of South Carolina*

## DEGREES CONFERRED FEBRUARY 7, 1939

*Bachelor of Science Degree**Agriculture—Agricultural Economics Major*

John Sewanee Baskin-----Bishopville

*Agriculture—Animal Husbandry Major*

James Herbert Lever, Jr.-----Columbia

George Hewlett McCarley -----Anderson

Ernest Allison Marvin, Jr. -----White Hall

*General Science*

Joseph Samuel Palmer-----Allendale

*Textile Engineering*

Virgil Adkins Ballard, Jr.-----Arcadia

Robert Clarence Heyward, Jr. -----Rockingham, N. C.

*Vocational Agricultural Education*

Myers Thomas Hambright -----Grover, N. C.

Francis Martin King -----Seneca

Carl Willis Prince -----Six Mile

Jacob Ralph Pritcher -----Holly Hill

Clarence Wesley Rainey-----Starr

Woodroe Harold Stokes -----Greer

Charles Harris Sweat -----Walterboro

John Rogers Townsend -----Blenheim

Francis Marvin Whitlock, Jr. -----Easley

*\*Industrial Education*

Marion McKee Miller -----Charleston

*Bachelor of Civil Engineering*

John Franklin Chandler -----Seneca

## DEGREES CONFERRED, SEPTEMBER 12, 1939

*Bachelor of Science**Agriculture—Agronomy Major*

John Buchanan Wakefield, Jr. .... Antreville

*Agriculture—Animal Husbandry Major*

Jack Montgomery Lapham ..... Pee Dee

*Agriculture—Entomology Major*

James Henry Ferguson, Jr. .... Toccoa, Ga.

*Chemistry*

George Middleton Williams ..... Savannah, Ga.

*General Science*

Gerald Ray Coker ..... Turbeville

Richard Melvin Lynes ..... Fairfax

Robert Vincent Martin, Jr. .... Savannah, Ga.

Robert Westray Rivenbark ..... Marion

Richardson Lee Stone ..... Sandersville, Ga.

Barham Foster Thomson, Jr. .... Landrum

*Textile Chemistry*

Charles Ludy Marion Baldwin ..... Rock Hill

Jules Ten Eyck Doux ..... Brooklyn, N. Y.

*Textile Engineering*

Louie Cromer Smith ..... Greenville

*Vocational Agricultural Education*

Edwin Eugene Clayton ..... Pickens

\*George Lewis Cunningham ..... Chester

Backman Hentz Glymph ..... Fair Play

Francis Edwin Peebles ..... Camden

*Bachelor of Mechanical Engineering*

George Cooper Staley, Jr. .... Chicago, Ill.

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\*With honor.

## DEGREES CONFERRED, FEBRUARY 6, 1940

*Bachelor of Science**Agriculture—Agronomy Major*

James Carlyle Williams -----Norway

*Agriculture—Animal Husbandry Major*

David Thomas Joyce -----Greenwood

*Agriculture—Horticulture Major*

Robert Reid Bolt -----Simpsonville

*Architecture*

\*Clifford LeRoy Coleman -----Wilmington, Del.

*General Science*

Philip Hunter McCorkle -----York

Robert Wyman Moss -----Charleston

*Pre-Medicine*

Arthur Victorious Williams, Jr. -----Charleston

*Textile Engineering*

William Deal Anderson, Jr. -----Gastonia, N. C.

Thomas Max Champion -----Union

*Weaving and Designing*

Charles Cleon Moon -----Spartanburg

*Vocational Agricultural Education*

Arthur Jacob DeLoach -----Scotia

James Barr Dreher -----Columbia

Gilmer Lee Snipes -----Townville

Eugene Ross Stewart -----Fountain Inn

*Industrial Education*

Edward Kirby Lominack -----Newberry

*Bachelor of Electrical Engineering*

Laurens Elliott McAlpine -----Union

\*With honor.



## LIST OF STUDENTS, FIRST SEMESTER, 1939-1940

The names are arranged in alphabetical order and following the names are symbols indicating classes and courses. The numerals preceding the course symbols refer to classes, viz.: 1, Freshman; 2, Sophomore; 3, Junior; 4, Senior. (Classified as of first semester. See page ??.) A-Agriculture (abbreviation indicates major course for juniors and seniors): Agr-Agronomy; AH-Animal Husbandry; D-Dairy; Ag Ec-Agricultural Economics; Ag Engr-Agricultural Engineering; Ent-Entomology; Hort-Horticulture; GS-General Science; Pre-Med-Pre-Medical; Ar-Architecture; C-Chemistry; E-Engineering (all engineering freshman); CE-Civil Engineering; Ch-Engr-Chemistry Engineering; EE-Electrical Engineering; ME-Mechanical Engineering; T-Textile; TC-Textile Chemistry; WD-Weaving and Designing; V Ag Ed-Vocational Agricultural Education; Ed-Education; I Ed-Industrial Education; TIE-Textile Industrial Education; S-Special (not classified). New students admitted in September, 1939, are indicated by a dagger (†).

| Name and Course               | Address            | Name and Course               | Address                |
|-------------------------------|--------------------|-------------------------------|------------------------|
| Abbott, F. A. (2 GS)          | Greenville         | Ariail, R. L. (4 Ag Ec)       | Sylva, N. C.           |
| Abbott, W. W. (2 TC)          | Seneca             | Armstrong, W. S. (2 T)        | Fountain Inn           |
| Abee, R. B. (3 Ar)            | Hickory, N. C.     | Arnette, J. W. E. (1 A)†      | Winnsboro              |
| Able, S. K. (2 V Ag Ed)       | Saluda             | Arrington, L. R. (4 D)        | Ninety Six             |
| Able, T. A. (4 CE)            | Abbeville          | Asbill, L. C. (2 Pre-Med)     | Ridge Spring           |
| Abrams, J. P. (2 Pre-Med)†    | Whitmire           | Ashburner, J. C. (1 GS)†      | Swissvale, Pa.         |
| Abrams, M. E. (1 V Ag Ed)†    | Whitmire           | Ashford, J. D. (3 GS)         | Georgetown             |
| Abrams, T. M. (1 Ag Engr)†    | Newberry           | Askins, J. F. (1 Pre-Med)†    | Hartsville             |
| Acker, H. L. (4 GS)           | Anderson           | Askins, P. R. (2 ME)          | Hartsville             |
| Ackerman, M. W. (4 ME)        | Cottageville       | Auerhamer, F. B. (1 Ed)†      | Edgefield              |
| Ackerman, W. H. (1 V Ag Ed)†  | Andrews            | Austel, J. R. (2 I Ed)        | Shelby, N. C.          |
| Ackerman, W. M. (3 TC)        | St. George         | Avent, H. E. (4 Ar)           | Bennettsville          |
| Ackis, H. S. (3 WD)           | Jacksonville, Fla. | Awtray, W. E. (3 EE)          | West Columbia          |
| Adams, G. W. (3 GS)           | Batesburg          | Ayers, R. R. (1 C)†           | Orangeburg             |
| Adams, J. C. (1 I Ed)†        | Greenwood          | Babb, J. M. (3 Ag Engr)       | Gray Court             |
| Adams, L. C. (1 E)†           | Saluda             | Badia, J. P. (1 Ar)           | San Juan, P. R.        |
| Adams, P. H. (4 I Ed)         | Gadsden            | Baggott, B. H. (1 E)†         | Columbia               |
| Adams, R. B. (2 EE)†          | Macon, Ga.         | Bagnal, H. T. (4 GS)          | Sumter                 |
| Addison, W. E. (1 V Ag Ed)†   | Brunson            | Bagwell, R. F. (2 T)          | Glendale               |
| Adickes, G. C. (2 Pre-Med)    | York               | Bailes, L. C. (S)             | Anderson               |
| Agnew, J. C. P. (3 Ag Engr)   | Starr              | Bailey, H. L. (2 V Ag Ed)     | Wellford               |
| Agnew, R. E. (4 ME)           | Donalds            | Bailey, R. B. (1 T)           | Lockhart               |
| Aiken, D. E. (2 A)            | New Zion           | Bailey, W. M. (2 EE)          | Summerville            |
| Albergotti, W. M. (2 EE)      | Columbia           | Baker, A. H. (4 TIE)          | Gastonia, N. C.        |
| Alexander, A. J. (1 I Ed)     | Anderson           | Baker, J. M. (4 Agr)          | Hemingway              |
| Alexander, J. W. (3 Ed)†      | Greenville         | Baker, K. A. (1 T)†           | South Dartmouth, Mass. |
| Alexander, W. M. (1 Pre-Med)† | Seneca             | Baker, W. E. (2 CE)           | Lancaster              |
| Allen, D. F. (1 TC)†          | Langley            | Baker, W. H. W. (2 T)         | Chester                |
| Allen, H. W. (1 A)†           | Star, N. C.        | Baldwin, T. E. (1 E)†         | Clinton                |
| Allen, J. C. (S)†             | Pelzer             | Balfour, F. H. (3 Hort)       | Orlando, Fla.          |
| Allen, J. H. (3 ME)           | Spartanburg        | Ballard, E. J. (2 EE)         | Charleston             |
| Allen, J. L. (3 T)            | Pacolet Mills      | Ballard, H. G. (2 ME)         | Pelzer                 |
| Allison, E. (3 T)             | Forest City, N. C. | Ballas, J. A. (1 A)†          | Washington, D. C.      |
| Allison, W. A. (2 ME)         | Chesnee            | Ballenger, P. C. (4 V Ag Ed)  | Westminster            |
| Alman, M. H. (2 A)            | Jonesville         | Ballentine, G. W. (2 A)       | Easley                 |
| Almeida, J. L. (4 I Ed)       | Charleston         | Ballentine, R. W. (4 V Ag Ed) | Prosperity             |
| Alston, R. P. (2 A)           | Rembert            | Barbare, C. O. (1 E)†         | Greenville             |
| Altman, D. D. (2 A)           | Clio               | Barber, G. L. (1 Pre-Med)†    | Fairfax                |
| Anderson, B. R. (1 V Ag Ed)†  | Timmons ville      | Barber, J. W. (1 GS)          | Columbia               |
| Anderson, B. W. (3 Ag Ec)     | Edgefield          | Bardin, P. T. (1 Pre-Med)†    | Cameron                |
| Anderson, C. E. (4 T)         | Seneca             | Barlow, J. (2 EE)             | Glenolden, Pa.         |
| Anderson, C. S. (2 EE)        | Sumter             | Barmore, W. E. (2 A)          | Donalds                |
| Anderson, G. J. (3 GS)        | Williston          | Barnes, F. S. (2 EE)          | Rock Hill              |
| Anderson, H. N. (2 C)         | Moultrieville      | Barnette, W. A. (2 TC)        | Greenwood              |
| Anderson, J. P. (1 Ag Engr)†  | Abbeville          | Barnwell, B. S. (2 T)         | Abbeville              |
| Anderson, R. M. (3 EE)        | Chester            | Barrineau, E. R. (1 A)†       | Lake City              |
| Anderson, W. D. (4 T)         | Gastonia, N. C.    | Barron, J. I. (3 ME)          | York                   |
| Anthony, S. H. (2 C)          | Greenville         | Barron, M. M. (1 E)†          | Seneca                 |
| Appleby, C. L. (1 E)†         | St. George         | Barton, J. H. (2 T)           | Anderson               |
| Arant, L. L. (2 T)            | Ft. Motte          | Barton, J. S. (1 E)†          | Lancaster              |
| Arant, T. D. (3 GS)           | Ft. Motte          | Barton, L. M. (3 EE)          | Taylors                |
| Ard, L. (1 E)†                | Greenville         | Baskin, R. R. (2 A)           | Bishopville            |

| Name and Course                | Address               | Name and Course             | Address               |
|--------------------------------|-----------------------|-----------------------------|-----------------------|
| Baskin, T. P. (4 I Ed)         | Anderson              | Blakeney, D. H. (1 T)†      | Lancaster             |
| Batchelor, P. R. (4 Agr)       | Blacksburg            | Blacklock, J. D. (2 T)      | Enka, N. C.           |
| Bateman, F. F. (4 EE)          | Columbia              | Blanchett, M. P. (2 T)      | Abbeville             |
| Bates, W. E. (1 E)†            | Tuxedo, N. C.         | Bland, F. S. (1 E)†         | Edgefield             |
| Bauknight, W. E. (1 GS)†       | Florence              | Blanton, H. E. (1 E)†       | Spartanburg           |
| Baxley, J. Baynard (1 E)†      | Lodge                 | Blanton, H. P. (4 Agr)      | Gaffney               |
| Baxley, J. Bunyan, (2 A)       | Barnwell              | Blanton, O. H. (2 V Ag Ed)  | Nichols               |
| Beacham, M. D. (2 EE)          | Newberry              | Blessing, J. E. (3 D)       | Kingsport, Tenn.      |
| Beattie, S. M. (4 T)†          | Greenville            | Boatwright, H. (4 Pre-Med)  | Seneca                |
| Beaty, A. R. (2 TC)            | Seneca                | Bobo, J. E. (1 E)†          | Cross Anchor          |
| Beaudrot, C. R. (3 ME)         | Greenwood             | Bobo, T. P. (1 GS)†         | Greenville            |
| Beaudrot, J. L. (3 ME)         | Greenwood             | Bodie, J. W. (1 E)†         | Newberry              |
| Beckett, T. A. (3 Hort)        | Johns Island          | Bodie, K. J. (2 V Ag Ed)    | Ward                  |
| Becknell, C. A. (2 T)          | Thomaston, Ga.        | Boggs, A. J. (2 C)          | Pickens               |
| Bedenbaugh, H. T. (1 Ag Engr)† | Prosperity            | Boggs, P. N. (1 A)†         | Calhoun               |
| Beeks, N. S. (1 T)†            | Ware Shoals           | Boissoneault, L. H. (1 E)†  | Charleston            |
| Beeson, M. G. (1 E)†           | Mullins               | Boland, T. S. (2 T)         | Blackville            |
| Behling, L. F. (2 Pre-Med)     | St. George            | Boliver, W. C. (4 TC)       | Orangeburg            |
| Belk, D. P. (1 Ed)†            | Gastonia, N. C.       | Bolt, J. E. (2 T)           | Calhoun Falls         |
| Belk, G. H. (2 A)              | Trenton               | Bolt, R. R. (4 Hort)        | Simpsonville          |
| Bell, F. (1 A)†                | Tifton, Ga.           | Bolt, W. H. (3 ME)          | Seneca                |
| Bell, H. F. (2 Ag Engr)        | Wampee                | Bond, L. P. (1 E)†          | Columbia              |
| Bell, J. J. (2 EE)             | Barnwell              | Bonnette, G. H. (4 Ag Ec)   | Florence              |
| Bell, M. S. (1 TC)†            | Greenwood             | Boozer, H. W. (2 AH)        | Leesville             |
| Bell, W. M. (4 V Ag Ed)        | Hartsville            | Boswell, R. C. (3 T)        | Travelers Rest        |
| Bellamy, G. G. (3 V Ag Ed)     | Loris                 | Botts, J. A. (2 Ch-Engr)    | Abbeville             |
| Belue, F. W. (2 Pre-Med)       | Gaffney               | Bouknight, C. L. (2 ME)     | Columbia              |
| Belue, H. P. (2 C)             | Charlotte, N. C.      | Boulware, J. E. (2 A)       | Newberry              |
| Benfield, J. K. (3 TC)         | York                  | Bouton, W. I. (4 GS)        | Ware Shoals           |
| Benjamin, G. F. (3 ME)         | Augusta, Ga.          | Bowers, D. G. (2 ME)        | Fitzgerald, Ga.       |
| Benjamin, I. (2 Pre-Med)       | Bowman                | Boy, C. T. (2 T)            | Fort Mill             |
| Bennett, E. F. (3 V Ag Ed)     | Vance                 | Boyd, W. B. (1 Ch-Engr)†    | Greenville            |
| Bennett, J. C. (1 A)†          | Charleston            | Boylston, W. L. (3 Ag Engr) | Charleston            |
| Bennett, J. H. (1 E)†          | Chesnee               | Bozard, L. S. (4 Agr)       | Cameron               |
| Bennett, T. P. (1 Ch-Engr)†    | Milford, Del.         | Bracken, J. J. (S)†         | Liberty               |
| Bennett, W. (2 V Ag Ed)        | Orangeburg            | Brackett, M. M. (2 Ar)      | Hendersonville, N. C. |
| Benton, D. A. (3 Agr)          | Timmons ville         | Bradbury, D. W. (4 ME)      | Seneca                |
| Bernardin, J. J. (1 Pre-Med)†  | Columbia              | Bradford, H. (3 T)          | Berryton, Ga.         |
| Berry, H. G. (3 T)             | Greenville            | Bradshaw, O. C. (1 E)†      | Cartersville, Ga.     |
| Berry, H. S. (3 Hort)          | Greer                 | Brady, H. G. (4 T)          | Columbia              |
| Berry, M. K. (2 E)†            | Atlanta, Ga.          | Brady, W. P. (3 T)          | Columbia              |
| Berry, M. M. (4 GS)            | Atlanta, Ga.          | Brannon, T. L. (2 V Ag Ed)  | Cassatt               |
| Berry, M. O. (1 Ag Engr)†      | Smoaks                | Branyon, W. E. (1 A)†       | Honea Path            |
| Berry, Reginald J. (3 Ag Engr) | Smoaks                | Braswell, H. A. (1 C)†      | Marion                |
| Berry, Robert, J. (1 A)†       | Bowman                | Brazell, D. E. (3 V Ag Ed)  | Blaney                |
| Berry, R. P. (2 ME)            | Easley                | Breazeale, K. S. (2 A)      | Pendleton             |
| Berry, R. S. (2 T)             | York                  | Breazeale, T. C. (2 A)      | Belton                |
| Berry, V. (1 V Ag Ed)†         | Minturn               | Breeland, R. L. (1 E)†      | Columbia              |
| Bethea, C. J. (3 Ag Engr)      | McColl                | Breland, W. D. D. (3 Ag Ec) | Ruffin                |
| Bethea, T. C. (3 Ag Engr)      | Dillon                | Brennen, J. J. (1 TC)†      | Auburn, N. J.         |
| Bethea, W. E. (2 GS)           | Kenly, N. C.          | Brewer, H. (4 V Ag Ed)      | Lane                  |
| Bethea, W. H. (4 EE)           | Marion                | Brice, T. W. (3 T)          | Woodward              |
| Betsill, W. L. (2 A)           | Laurens               | Bridges, M. L. (4 V Ag Ed)  | Blacksburg            |
| Bettters, R. J. (1 E)†         | Pittsfield, Mass.     | Bridwell, J. C. (1 E)†      | Taylors               |
| Bettis, J. R. (4 ME)           | Greenville            | Briggs, R. E. (1 A)†        | Manning               |
| Bickley, C. E. (3 T)           | Pendleton             | Briscoe, R. E. (1 E)†       | Moncks Corner         |
| Bickley, D. W. (2 A)           | Lexington             | Bristol, W. G. (1 E)†       | New Port Richey, Fla. |
| Bird, C. L. (1 T)              | Asheville, N. C.      | Brockman, W. D. (3 GS)      | Greer                 |
| Bird, E. R. (3 T)              | West Asheville, N. C. | Bronson, W. T. (1 E)†       | Barnwell              |
| Bird, J. P. (2 Ar)             | Greenville            | Brooks, A. L. (2 C)         | Timmons ville         |
| Bird, L. S. (1 V Ag Ed)†       | Greenville            | Brooks, E. (1 E)†           | Penns Grove, N. J.    |
| Bischoff, R. J. (3 C)          | Summerville           | Brooks, J. R. (2 T)†        | Piedmont              |
| Bisset, D. A. (2 Ch-Engr)      | Savannah, Ga.         | Brooks, Q. P. (2 ME)        | North Charleston      |
| Black, C. V. (4 V Ag Ed)       | Ward                  | Brooks, W. C. (2 T)         | Prosperity            |
| Black, D. (1 E)†               | Columbia              | Broun, D. (2 ME)            | Wilmington, N. C.     |
| Black, T. H. (3 Ar)            | Columbia              | Brown, B. V. (2 Ag Engr)    | Pacolet               |
| Blackmon, C. R. (2 GS)         | Timmons ville         | Brown, C. H. (1 V Ag Ed)†   | Travelers Rest        |
| Blackmon, E. B. (1 Ar)†        | Heath Springs         | Brown, C. S. (1 A)†         | Maysville             |
| Blackmon, E. W. (1 E)†         | Hickory Grove         | Brown, D. H. (1 Ch-Engr)†   | Camden                |
| Blackmon, W. D. (1 TC)†        | Rock Hill             | Brown, E. B. (2 ME)         | Philadelphia, Pa.     |
| Blackwell, B. E. (2 V Ag Ed)   | Landrum               | Brown, E. R. (3 V Ag Ed)    | Bishopville           |
| Blackwell, J. Y. (1 Ar)†       | Columbia              | Brown, G. W. (1 A)†         | Hickory Grove         |
| Blair, C. H. (4 T)             | Clemson               | Brown, H. E. (1 T)†         | Greenville            |
| Blair, H. C. (3 Ar)            | Sevierville, Tenn.    | Brown, H. G. (1 Ch-Engr)†   | Orangeburg            |
| Blair, R. C. (1 E)†            | Blairs                | Brown, J. A. (1 T)†         | Greenville            |



| Name and Course              | Address               | Name and Course              | Address               |
|------------------------------|-----------------------|------------------------------|-----------------------|
| Brown, J. C. (2 Pre-Med)     | Sumter                | Cannon, J. E. (3 TC)         | Hartsville            |
| Brown, J. E. (1 T)†          | Columbia              | Cannon, O. B. (2 GS)         | Newberry              |
| Brown, J. G. (1 I Ed)†       | Westminster           | Cannon, R. N. (2 V Ag Ed)†   | Hemingway             |
| Brown, J. L. (2 A)           | Conway                | Cantrell, C. W. (1 E)†       | Spartanburg           |
| Brown, J. S. (1 A)†          | Campobello            | Cantrell, J. R. (1 T)†       | Port Mill             |
| Brown, J. W. (2 A)           | Starr                 | Cantrell, M. C. (3 V Ag Ed)  | Spartanburg           |
| Brown, M. K. (1 V Ag Ed)†    | Troutmans, N. C.      | Cantrell, W. R. (2 EE)       | Spartanburg           |
| Brown, M. W. (1 E)†          | Pacolet               | Carder, W. H. (3 TC)         | Bedford, Pa.          |
| Brown, R. H. (3 GS)          | Charleston            | Cargill, T. C. (2 EE)        | Columbia              |
| Brown, T. J. B. (1 T)†       | Mount Joy, Pa.        | Carmichael, A. C. (2 D)      | Ridgeville            |
| Browne, C. H. (2 C)          | Florence              | Carmichael, G. A. (1 E)†     | Claussen              |
| Brownlee, W. J. (1 V Ag Ed)† | Augusta, Ga.          | Carnes, J. E. (2 GS)         | Lancaster             |
| Brownley, F. I. (S)†         | Spartanburg           | Carnes, A. L. (1 A)          | Columbia              |
| Broyles, J. N. (3 A)         | Townville             | Carpenter, C. T. (2 TC)      | Kings Mountain, N. C. |
| Bruggemann, G. H. W. (1 T)†  | Charleston            | Carr, H. (1 Ar)†             | Columbia              |
| Brunson, W. L. (2 V Ag Ed)   | Brunson               | Carrigan, E. W. (3 Pre-Med-) | Society Hill          |
| Bryan, C. B. (4 CE)          | Johns Island          | Carson, C. R. (4 C)          | Anderson              |
| Bryan, D. C. (2 A)           | Swansea               | Carson, W. H. (2 T)          | Orangeburg            |
| Bryan, J. F. (2 EE)          | Fairfax               | Catee, J. K. (2 V Ag Ed)     | Liberty               |
| Bryan, W. C. (4 AH)          | Fairfax               | Carter, C. A. (2 EE)         | Charleston            |
| Bryant, L. (3 V Ag Ed)       | Carthage, Tenn.       | Carter, C. C. (1 V Ag Ed)†   | Leo                   |
| Bryant, R. H. (4 Ag Engr)    | Florence              | Carter, C. F. (1 Ar)†        | Washington, D. C.     |
| Bubser, E. D. (1 A)†         | Bethlehem, Pa.        | Carter, C. L. (2 V Ag Ed)    | Salters               |
| Buchanan, A. M. (3 GS)       | McColl                | Carter, J. D. (3 V Ag Ed)    | Leo                   |
| Buchanan, H. L. (3 T)        | Anderson              | Carter, J. R. (4 V Ag Ed)    | Fort Lawn             |
| Buchanan, R. L. (1 E)†       | Greenwood             | Carter, M. E. (1 A)†         | Elliott               |
| Buff, J. N. (1 GS)           | Elko, Ga.             | Carter, T. F. (1 GS)†        | Anderson              |
| Buford, W. B. (2 T)          | Clinton               | Carter, W. W. (1 Pre-Med)†   | Barnwell              |
| Buhrmaster, D. H. (1 A)†     | Schenectady, N. Y.    | Cary, L. H. (1 E)†           | Greenville            |
| Buist, B. (2 EE)             | Blackville            | Cary, T. C. (1 Pre-Med)†     | Dillon                |
| Bull, B. R. (3 V Ag Ed)      | Cameron               | Casale, R. S. (3 C)          | Brooklyn, N. Y.       |
| Bull, J. F. (1 T)†           | Spartanburg           | Cash, F. G. (2 T)            | Tucapau               |
| Bull, L. H. (4 V Ag Ed)      | Cameron               | Cash, T. J. (1 T)†           | Taylors               |
| Bull, R. L. (2 V Ag Ed)      | Parler                | Cason, L. L. (3 C)           | Williamston           |
| Bullington, W. A. (2 T)      | Spartanburg           | Cassery, J. J. (1 TC)        | Flushing, N. Y.       |
| Burch, R. M. (2 A)†          | Florence              | Castles, J. F. (3 EE)        | Winnsboro             |
| Burdette, A. A. (S)†         | Iva                   | Caston, B. A. (2 V Ag Ed)    | Pageland              |
| Burdette, E. K. (4 GS)       | Charleston            | Cathcart, T. M. (3 GS)       | Bishopville           |
| Burgess, A. F. (3 Ag Engr)   | Belton                | Catoo, W. H. (1 T)†          | Kershaw               |
| Burgess, E. C. (3 GS)        | Kingstree             | Caughman, R. B. (3 ME)       | Columbia              |
| Burgess, G. H. (2 ME)        | Fountain Inn          | Caughman, R. H. (4 AH)       | Leesville             |
| Burgess, W. H. (1 GS)†       | Sumter                | Caughman, W. D. (1 E)†       | Columbia              |
| Burley, B. B. (3 Pre-Med)    | Clemson               | Cely, W. H. (1 Ar)†          | Easley                |
| Burley, W. D. (1 GS)†        | Clemson               | Chamberlain, O. B. (1 E)†    | Charleston            |
| Burnett, A. D. (1 Pre-Med)†  | Sumter                | Champion, T. M. (4 T)        | Union                 |
| Burnett, J. W. (4 T)†        | Greenville            | Chandler, A. W. (2 Ch-Engr)  | Marietta, Ga.         |
| Burnette, H. W. (2 EE)       | Belton                | Chandler, F. D. (1 V Ag Ed)† | Henry                 |
| Burns, P. J. (4 T)           | Greenville            | Chandler, S. B. (1 Ag Engr)† | Minturn               |
| Burriss, T. M. (4 I Ed)      | Anderson              | Chandler, W. J. (1 V Ag Ed)† | Henry                 |
| Burriss, W. C. (1 E)†        | Anderson              | Chandler, W. O. (4 CE)       | Piedmont              |
| Burrows, J. R. (1 A)†        | Oswego                | Chapin, J. F. (1 GS)†        | Ridgewood, N. J.      |
| Burton, H. M. (2 T)          | Anderson              | Chapin, J. F. (2 A)          | Lamar                 |
| Bush, S. M. (3 TC)           | Colquitt, Ga.         | Chapman, A. D. (S)           | Liberty               |
| Bussey, W. W. (3 TC)         | Greenville            | Chapman, Q. L. (1 A)†        | Mountville            |
| Butler, E. C. (3 Ag Ec)      | Yonges Island         | Chapman, W. F. (1 A)†        | Hartsville            |
| Butler, G. W. (2 V Ag Ed)    | Travelers Rest        | Chappell, T. E. (1 E)†       | Columbia              |
| Butts, S. W. (S)†            | Newry                 | Charles, J. (2 WD)           | Piedmont              |
| Byars, L. L. (1 E)†          | Blackstock            | Chastain, F. H. (2 V Ag Ed)  | Pickens               |
| Byars, R. W. (1 A)†          | Pacolet Mills         | Chastain, R. C. (1 V Ag Ed)  | Pickens               |
| Byrd, R. D. (1 I Ed)         | Prosperity            | Chastain, V. T. (1 V Ag Ed)† | Pickens               |
| Byrd, R. H. (1 A)†           | Pleasant Ridge, Mich. | Chastain, W. H. (2 V Ag Ed)  | Taylors               |
| Caddelle, C. E. (1 CE)       | Hartsville            | Cheatham, F. C. (3 T)        | Greenwood             |
| Cagle, J. D. (1 V Ag Ed)†    | Andrews               | Cheatham, R. L. (2 TC)       | Abbeville             |
| Cain, C. W. (1 A)†           | Florence              | Cheezem, W. L. (2 Pre-Med)   | Andrews               |
| Cain, J. N. (1 V Ag Ed)      | Sumter                | Chestochowski, B. A. (1 TC)† | New York, N. Y.       |
| Caldwell, T. H. (3 V Ag Ed)  | Ruffin                | Chiple, W. A. (1 GS)†        | Lynchburg, Va.        |
| Calhoun, R. A. (3 CE)        | Ringgold, Ga.         | Chitty, H. M. (2 A)          | Gainesville, Fla.     |
| Callaway, J. M. (1 EE)       | Myrtle Beach          | Christman, M. S. (2 T)†      | Spartanburg           |
| Cameron, A. N. (3 CE)        | Rocky Mount, N. C.    | Christopher, J. D. (3 TC)    | Greenville            |
| Cameron, E. B. (2 E)†        | Ocean City, N. J.     | Chuharski, J. (3 I Ed)       | Port Chester, N. J.   |
| Campbell, C. M. (1 Ag Engr)  | Sheldon               | Clanton, C. P. (1 TC)†       | Lancaster             |
| Campbell, D. B. (1 E)†       | Dillon                | Clark, J. R. (2 A)           | Columbia              |
| Campbell, R. N. (1 E)†       | Greenville            | Clark, J. T. (2 CE)†         | Springfield           |
| Campbell, W. F. (4 I Ed)     | Anderson              |                              |                       |
| Cannon, C. D. (3 Ag Engr)    | Hemingway             |                              |                       |

| Name and Course               | Address            | Name and Course                  | Address               |
|-------------------------------|--------------------|----------------------------------|-----------------------|
| Clark, W. M. (2 EE)           | Johnston           | Cox, A. Z. (3 TC)                | Hardeeville           |
| Clarke, W. E. (1 C)†          | Clemson            | Cox, D. W. (S)†                  | Tomnolen, Miss.       |
| Clawson, C. H. (2 CE)         | Rock Hill          | Cox, H. C. (3 ME)                | Johnsonville          |
| Clay, N. P. (2 T)             | Greenville         | Cox, J. B. (1 A)†                | Belton                |
| Clegg, C. R. (S)              | Asheville, N. C.   | Cox, James L. (1 E)†             | Belmont, N. C.        |
| Cleveland, D. (1 T)†          | Greenville         | Cox, Joseph L. (2 T)             | Belton                |
| Cleveland, E. P. (4 T)        | Marietta           | Cox, L. R. (1 V Ag Ed)†          | Russellville          |
| Cline, W. E. (3 ME)           | Newton, N. C.      | Cox, T. H. (4 EE)                | Calhoun Falls         |
| Cloaninger, J. M. (1 A)†      | Lykesland          | Cox, W. F. (S)                   | Tomnolen, Miss.       |
| Clotfelder, J. B. (1 Ar)†     | Bardo, Ky.         | Cox, W. T. (S)                   | Belton                |
| Clowney, J. Y. (2 Ch-Engr)    | Columbia           | Coyle, B. M. (3 CE)              | Columbia              |
| Coachman, F. G. (1 E)†        | Manning            | Craig, J. E. (1 V Ag Ed)†        | Salem                 |
| Coakley, F. H. (3 Ag Ec)      | Washington, D. C.  | Craig, R. M. (1 Ed)†             | Greenville            |
| Coakley, G. E. (3 Ag Ec)      | Washington, D. C.  | Cranford, M. H. (3 T)            | Chester               |
| Cobb, C. D. (4 T)             | Belton             | Cranford, W. D. (1 T)†           | Sharon                |
| Cobb, M. D. (S)               | Westminster        | Craven, F. M. (4 GS)             | Florence              |
| Coble, G. S. (1 Ch-Engr)†     | Charlotte, N. C.   | Craven, M. H. (1 Ag Engr)†       | Florence              |
| Cochran, R. P. (4 GS)         | Charleston         | Crawford, K. L. (2 GS)           | Clemson               |
| Coggins, A. E. (3 V Ag Ed)    | Inman              | Crawford, L. A. (1 T)†           | Goldville             |
| Cogswell, G. W. (2 Ch-Engr)   | Charleston         | Crayton, T. W. (3 GS)            | Anderson              |
| Cohen, E. (4 TC)              | Newark, N. J.      | Creamer, B. H. (4 Ar)†           | Anderson              |
| Cohen, H. (1 Ed)†             | Walterboro         | Creel, L. E. (4 V Ag Ed)         | Poston                |
| Coker, L. W. (2 GS)           | Turbeville         | Crenshaw, W. H. (1 E)†           | Pendleton             |
| Coker, R. C. (2 V Ag Ed)      | Laurens            | Crews, M. S. (3 TC)              | Laurens               |
| Coker, T. H. (3 T)            | Columbia           | Crews, S. F. (2 I Ed)            | Hampton               |
| Colbert, W. M. (1 V Ag Ed)†   | Sanford, Fla.      | Cribb, T. K. (1 GS)†             | Spartanburg           |
| Coleman, C. L. (4 Ar)         | Wilmington, Del.   | Crocker, T. J. (3 Ch-Engr)       | Charleston            |
| Coleman, D. B. (3 V Ag Ed)    | Saluda             | Crook, R. C. (1 E)†              | Kings Mountain, N. C. |
| Coleman, H. A. (2 ME)         | Mt. Pleasant       | Crook, W. C. (1 A)†              | Cameron               |
| Coleman, J. R. (2 EE)         | Pamplico           | Crosby, C. D. (1 Ar)†            | Chester               |
| Coleman, R. W. (1 Pre-Med)†   | Pamplico           | Crossland, D. (2 A)              | Aiken                 |
| Coleman, W. J. (4 GS)         | Aiken              | Crosswell, F. D. (1 E)†          | Houston, Texas        |
| Collins, A. H. (1 A)†         | Mullins            | Crosswell, J. E. (1 GS)†         | Houston, Texas        |
| Collins, E. B. (1 A)†         | Conway             | Crouch, H. J. (3 I Ed)           | Elko                  |
| Collins, W. A. (1 V Ag Ed)†   | Mullins            | Crouch, H. L. (2 V Ag Ed)        | Saluda                |
| Collins, W. D. (4 I Ed)       | Inman              | Crouch, J. B. (1 Ch-Engr)†       | Saluda                |
| Coltrane, R. A. (2 ME)        | Columbia           | Crow, J. P. (1 Ag Engr)†         | Fairforest            |
| Colvin, J. S. (2 ME)          | Chester            | Crow, S. (2 T)                   | Drayton               |
| Colvin, R. E. (2 C)           | Darlington         | Crowder, M. M. (2 A)             | Salem Cross Roads     |
| Combs, L. J. (1 Ag Engr)†     | Sarasota, Fla.     | Croxson, E. F. (4 CE)            | Charlotte, N. C.      |
| Commander, G. C. (4 CE)       | Florence           | Croxson, T. E. (1 T)†            | Charlotte, N. C.      |
| Compton, E. S. (2 I Ed)       | Greenwood          | Crumbley, J. C. (4 Ch-Engr)      | Charleston            |
| Compton, G. W. (3 I Ed)       | Hartsville         | Culler, C. G. (1 E)†             | Orangeburg            |
| Cone, L. (1 V Ag Ed)†         | Fairfax            | Culler, C. H. (1 C)†             | Orangeburg            |
| Connell, I. K. (1 V Ag Ed)†   | Camden             | Culler, J. C. (3 Agr)            | Wolfton               |
| Connell, N. G. (3 V Ag Ed)    | Camden             | Culpepper, J. P. (1 GS)†         | Tifton, Ga.           |
| Cook, H. L. (4 EE)            | Owings             | Cunningham, C. D. (2 I Ed)       | Liberty Hill          |
| Cook, O. K. (4 V Ag Ed)       | Prosperity         | Cunningham, J. L. (1 V Ag Ed)†   | Jonesville            |
| Cook, R. E. (1 EE)            | Owings             | Cuthbert, F. P. (1 A)†           | Barnwell              |
| Cook, R. F. (1 V Ag Ed)†      | Owings             | Cuttino, E. C. (2 GS)†           | Sumter                |
| Cooler, C. L. (1 V Ag Ed)     | Ridgeland          | Cuttle, C. R. (1 E)†             | Spartanburg           |
| Cooler, E. W. (3 Hort)        | Chisolm            | Dabbs, C. F. (2 ME)              | Sumter                |
| Cooler, H. L. (1 Ar)†         | Chisolm            | Dalrymple, J. H. C. (2 V Ag Ed)† | Mt. Croghan           |
| Cooler, R. L. (4 V Ag Ed)     | Chesnee            | Dameron, H. G. (1 T)†            | Star, N. C.           |
| Cooley, W. Y. (3 GS)†         | Gray Court         | Dangerfield, C. M. (1 V Ag Ed)   | Oakley                |
| Cooner, A. W. (3 Ch-Engr)     | Batesburg          | Dantzler, L. A. (2 V Ag Ed)      | Eutawville            |
| Cooper, R. L. (1 A)           | Simpsonville       | Dantzler, P. H. (3 V Ag Ed)      | Parler                |
| Cooper, S. W. (1 E)†          | Sumter             | Darby, W. E. (2 TC)              | Pelzer                |
| Cope, G. B. (2 EE)            | Cope               | Darby, W. M. (3 CE)              | Beaufort              |
| Copeland, H. J. (3 Hort)      | Newport, News, Va. | Darrin, S. W. (2 T)              | Spartanburg           |
| Copeland, N. (3 EE)           | Timmonsville       | Darwin, D. P. (4 ME)             | Gaffney               |
| Copley, W. M. (4 EE)          | N. Mewan, W. Va.   | Davant, C. (2 Pre-Med)           | Columbia              |
| Corley, J. E. (1 V Ag Ed)†    | Lexington          | Davant, F. D. (2 Pre-Med)        | Columbia              |
| Cornwell, J. B. (1 T)†        | Chester            | Davenport, B. G. (1 E)†          | Columbia              |
| Correll, H. M. (3 Ch-Engr)    | York               | Davenport, J. D. (2 ME)          | Greenville            |
| Cothran, P. C. (3 CE)         | Greenville         | Davis, C. S. (2 Pre-Med)         | Orlando, Fla.         |
| Cothran, W. B. (1 E)†         | Greenwood          | Davis, H. F. (2 A)               | Marion                |
| Cottingham, J. E. (3 Ag Engr) | Dillon             | Davis, M. H. (1 Pre-Med)†        | Norway                |
| Cottingham, J. M. (2 A)       | Dillon             | Davis, S. E. (3 Ch-Engr)         | Brunswick, Ga.        |
| Cotton, H. S. (1 Ag Engr)†    | Eastover           | Davis, T. F. (4 GS)              | Orlando, Fla.         |
| Couch, F. F. (1 E)†           | Liberty            | Davis, T. L. (3 GS)†             | Buffalo               |
| Couch, J. H. (2 I Ed)         | Easley             | Davis, W. B. (1 Pre-Med)†        | Summerton             |
| Couch, K. O. (2 V Ag Ed)      | Easley             | Davis, W. O. (2 A)               | Marion                |
| Courseon, J. S. (2 A)†        | Clarksville, Ga.   | Day, R. B. (2 EE)                | Atlanta, Ga.          |
| Coward, W. A. (3 Hort)        | Aiken              |                                  |                       |



| Name and Course             | Address             | Name and Course               | Address          |
|-----------------------------|---------------------|-------------------------------|------------------|
| Deale, S. B. (1 C)†         | Callison            | Dyer, J. R. (1 GS)†           | Greenville       |
| Deaver, J. K. (1 V Ag Ed)†  | Hemingway           | Dysart, J. O. (1 T)†          | Greenville       |
| DeBerry, H. S. (1 Pre-Med)† | Florence            | Eaddy, C. M. (3 V Ag Ed)      | Hemingway        |
| Deitz, J. F. (2 Ed)         | Hickory, N. C.      | Eaddy, J. F. (1 E)†           | Florence         |
| DeLany, A. H. (1 EE)        | Greenville          | Eaddy, L. L. (3 V Ag Ed)      | Hemingway        |
| Dellastatious, A. E. (3 ME) | Washington, D. C.   | Eadon, J. R. (3 T)            | Manning          |
| Dellastatious, F. A. (2 Ar) | Washington, D. C.   | Earle, J. B. (4 V Ag Ed)      | Central          |
| Dellinger, F. W. (2 I Ed)   | Spartanburg         | Earle, S. T. (2 Ar)           | Greenville       |
| DeLoach, A. J. (4 V Ag Ed)  | Scotia              | Earley, C. L. (1 E)†          | Cherokee Falls   |
| DeMai, N. (3 GS)            | Rocky Mount, N. C.  | Early, W. F. (3 GS)           | Florence         |
| Demosthenes, H. J. (2 Ar)   | Beaufort            | Easterling, S. E. (1 Ed)†     | Hartsville       |
| Dennis, P. (2 Ag Engr)      | Rembert             | Eavenson, J. W. (1 T)†        | Elberton, Ga.    |
| Denny, E. R. (2 ME)         | Columbia            | Edens, M. B. (2 Pre-Med)      | Pickens          |
| Denny, H. S. (3 I Ed)       | Bishopville         | Edmonds, J. L. (3 T)          | Fallston, N. C.  |
| Dent, H. N. (3 Ag Engr)     | St. Matthews        | Edwards, C. R. (1 A)          | Varnville        |
| Derrick, J. A. (1 Ed)†      | Johnston            | Edwards, E. G. (2 Pre-Med)    | Columbia         |
| Derrick, J. R. (1 Pre-Med)† | Clayton, Ga.        | Edwards, G. T. (3 EE)         | Rowesville       |
| Derrick, W. G. (2 V Ag Ed)  | Johnston            | Edwards, G. W. (2 A)          | Gresham          |
| DesChamps, W. W. (1 E)†     | Bishopville         | Edwards, J. A. (2 T)          | Fountain Inn     |
| DesPortes, J. A. (3 T)      | Fort Mill           | Edwards, J. C. (2 T)          | Seneca           |
| Dickerson, A. A. (2 A)†     | McDonough, Ga.      | Edwards, J. E. (1 GS)†        | Union            |
| Dickerson, G. L. (2 T)      | Spartanburg         | Edwards, J. L. (3 EE)         | Florence         |
| Dicks, N. R. (3 T)          | Barnwell            | Edwards, J. O. (1 E)†         | Macbeth          |
| Dillard, B. F. (1 TC)†      | Greenville          | Ehrhardt, J. S. (4 GS)        | Charleston       |
| Dillard, L. C. (1 Pre-Med)† | Easley              | Eidson, W. L. (4 AH)          | Ward             |
| Dillard, T. W. (S)          | Liberty             | Elledge, L. D. (2 V Ag Ed)    | Ware Shoals      |
| Dillard, W. B. (1 Pre-Med)† | Westminster         | Ellerbe, J. E. (1 E)†         | Florence         |
| Dillard, W. C. (1 Pre-Med)† | Six Mile            | Elliott, E. S. (1 V Ag Ed)†   | Mullins          |
| Dingle, H. I. (1 E)†        | Georgetown          | Elliott, F. H. (1 A)†         | Nichols          |
| Dixon, J. C. (1 E)†         | Bishopville         | Elliott, J. E. (1 I Ed)†      | Columbia         |
| Dixon, J. H. (2 Pre-Med)    | Anderson            | Elliott, R. H. (2 Pre-Med)    | Summerton        |
| Dixon, J. S. (4 Ag Engr)    | Bishopville         | Ellis, R. H. (2 CE)           | Little River     |
| Dixon, W. H. (1 Pre-Med)†   | Florence            | Ellis, W. H. N. (2 Pre-Med)   | Greenwood        |
| Doar, H. F. (1 E)†          | Charleston          | Ellison, T. W. (4 T)          | Columbia         |
| Doar, J. P. (1 E)†          | Greenville          | Elmore, F. B. (3 Ch-Engr)     | Savannah, Ga.    |
| Dobbins, F. G. (4 Agr)      | Townville           | Elphick, C. C. (3 C)          | Greenville       |
| Dobson, C. B. (3 Hort)      | Greer               | Elvington, C. W. (1 E)†       | Nichols          |
| Dobson, W. C. (1 I Ed)†     | Central             | Embody, C. F. (3 TC)          | Summit Hill, Pa. |
| Donly, W. H. (2 GS)         | Columbia            | Embree, F. P. (2 ME)          | Greenville       |
| Donovan, W. H. (2 ME)       | Wadley, Ga.         | Emerson, R. W. (1 A)†         | Charleston       |
| Dorman, J. E. (1 Pre-Med)†  | Conway              | Epps, D. E. (2 V Ag Ed)       | Latta            |
| Dorn, K. J. (2 GS)          | Jersey, City, N. J. | Epps, F. M. (1 V Ag Ed)†      | New Zion         |
| Dorn, O. G. (2 Ag Engr)     | Sumter              | Epps, J. C. (2 A)             | Kingstree        |
| Drake, B. F. (1 Ar)†        | Williamston         | Epps, J. W. (3 Ar)            | Kingstree        |
| Drake, R. S. (1 Ag Engr)†   | Belton              | Epting, C. E. (2 Ar)          | Greenville       |
| Dreher, J. B. (4 V Ag Ed)   | Columbia            | Epting, S. W. (4 V Ag Ed)     | Newberry         |
| Dreisbach, L. D. (3 EE)     | Columbia            | Erwin, P. N. (2 Ed)           | Albany, Ga.      |
| Drennan, R. F. (2 T)        | Rock Hill           | Eskew, E. B. (1 A)†           | Anderson         |
| Driver, A. H. (3 Ch-Engr)   | Aiken               | Etheredge, H. M. (1 V Ag Ed)  | Springfield      |
| DuBose, E. E. (3 T)         | Oswego              | Evans, C. E. (2 I Ed)         | Orangeburg       |
| DuBose, E. M. (1 E)†        | Oswego              | Evans, C. W. (1 GS)†          | Timmons ville    |
| DuBose, F. (2 V Ag Ed)      | Camden              | Evans, F. I. (1 E)†           | Cameron          |
| DuBose, M. E. (1 A)†        | Sardinia            | Evans, J. Hayward (3 V Ag Ed) | Six Mile         |
| Ducworth, E. T. (1 A)       | Anderson            | Evans, J. Heriot (3 CE)       | Bennettsville    |
| Ducworth, W. W. (2 A)       | Anderson            | Evans, L. N. (4 I Ed)         | Six Mile         |
| Dudley, A. C. (3 V Ag Ed)   | Mullins             | Evans, L. S. (2 CE)           | Cheraw           |
| Dukes, J. D. (1 Ch-Engr)†   | Orangeburg          | Evans, W. J. (1 E)†           | Abbeville        |
| Dukes, J. L. (3 CE)         | St. George          | Eve, Pinckney, (3 D)          | Burton           |
| Dukes, R. C. (3 EE)         | Orangeburg          | Ewart, J. A. (3 Pre-Med)      | Blackstock       |
| Duncan, C. R. (1 C)†        | Heath Springs       | Exum, C. P. (2 GS)            | Sumter           |
| Dunham, C. F. (3 CE)        | Anderson            | Fain, S. Z. (1 T)             | New York, N. Y.  |
| Dunham, E. W. (3 T)         | Durham, N. C.       | Fairey, G. H. (1 T)†          | Kingstree        |
| Dunlap, C. K. (1 E)†        | Hartsville          | Fairey, P. W. (3 Pre-Med)     | St. Matthews     |
| Dunlap, G. M. (3 T)         | Tucapau             | Falls, M. E. (4 Ar)           | Asheville, N. C. |
| Dunlap, J. D. (1 V Ag Ed)†  | McCormick           | Fant, C. H. (1 A)†            | Anderson         |
| Dunn, A. B. (3 C)           | Bethlehem, Pa.      | Fant, J. R. (2 T)             | Lockhart         |
| Dunn, C. (1 E)†             | Rock Hill           | Faris, E. M. (1 E)†           | Rock Hill        |
| Dunn, C. W. (1 Pre-Med)†    | Bethlehem, Pa.      | Farmer, J. G. (4 ME)          | Anderson         |
| Dunn, L. E. (4 V Ag Ed)     | Zebulon, Ga.        | Farmer, R. S. (3 ME)          | Charleston       |
| DuPre, F. A. (2 ME)         | Abbeville           | Farnum, C. O. (4 ME)          | Orangeburg       |
| DuRant, E. C. (1 Pre-Med)†  | Sumter              | Faulkner, H. B. (1 E)†        | Clover           |
| DuRant, J. A. (1 Ch-Engr)†  | Sumter              | Faulkner, T. C. (2 A)         | McCormick        |
| Dusenbury, J. D. (2 A)      | Florence            | Fellers, C. B. (1 A)†         | Silverstreet     |
|                             |                     | Fellers, H. H. (2 A)          | Prosperity       |
|                             |                     | Fellers, L. Q. (4 T)          | Newberry         |

| Name and Course                    | Address               | Name and Course                    | Address          |
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| Fellers, R. C. (4 T)-----          | Prosperity            | Gambrell, D. H. (4 Agr)-----       | Seneca           |
| Felton, T. D. (1 E)†-----          | Bartow, Fla.          | Gardner, W. W. (1 A)†-----         | Florence         |
| Fendley, F. J. (1 V Ag Ed)-----    | Salem                 | Gardner, E. G. (3 AR)-----         | Lancaster        |
| Fennell, R. C. (2 V Ag Ed)-----    | Loris                 | Gardner, F. R. (3 ME)-----         | Savannah, Ga.    |
| Fenstemacher, E. R. (4 D)-----     | Hudson, Mich.         | Gardner, W. A. (3 Agr)-----        | Hartsville       |
| Ferguson, B. E. (2 Ch-Engr)-----   | Abbeville             | Garfinkel, N. (2 TC)-----          | Charleston       |
| Ferguson, H. E. (3 GS)-----        | McCormick             | Garner, J. A. (3 GS)-----          | Hartsville       |
| Ferguson, J. G. (2 Ch-Engr)-----   | Winnboro              | Garrett, E. B. (1 A)-----          | New Roads, La.   |
| Ferguson, L. H. (1 A)†-----        | Columbia              | Garrett, P. T. (4 EE)-----         | Fountain Inn     |
| Ferguson, T. D. (4 T)-----         | Abbeville             | Garrett, W. C. (2 GS)-----         | Charlotte, N. C. |
| Ferrell, R. S. (1 V Ag Ed)†-----   | Greeleyville          | Garris, J. A. (3 V Ag Ed)†-----    | Lake View        |
| Ferrier, R. C. (2 GS)-----         | Clemson               | Garrison, J. S. (4 Pre-Med)-----   | Seneca           |
| Ferris, L. R. (3 V Ag Ed)-----     | Orangeburg            | Garrison, T. E. (2 V Ag Ed)-----   | Anderson         |
| Pick, W. W. (1 C)†-----            | DeWitt, N. Y.         | Gaskins, H. K. (1 A)†-----         | Pamlico          |
| Picklin, M. T. (3 T)-----          | Ninety Six            | Gasque, J. S. (2 I Ed)-----        | Conway           |
| Fisher, D. W. (1 E)†-----          | Wilmington, N. C.     | Gaston, C. C. (4 T)-----           | Charleston       |
| Fleeman, B. H. (2 C)-----          | Greenville            | Gatlin, L. E. (1 T)†-----          | Newberry         |
| Fleetwood, H. G. (3 T)-----        | Clemson               | Gay, M. F. (1 E)†-----             | Kershaw          |
| Fleming, F. M. (3 Agr)-----        | Lanford               | Geer, R. M. (S)-----               | Clemson          |
| Fleming, W. R. (1 A)†-----         | New Zion              | Genet, G. R. F. (2 C)-----         | Georgetown       |
| Fletcher, B. A. (3 T & WD)-----    | Rock Hill             | Gerrard, S. S. (1 A)†-----         | Anderson         |
| Fletcher, G. L. (2 Ag Ec)-----     | McColl                | Gettys, B. W. (2 ME)-----          | Lugoff           |
| Fletcher, N. (3 Ag Ec)-----        | McColl                | Gettys, R. E. (2 A)-----           | Lugoff           |
| Flowers, A. (1 A)†-----            | Society Hill          | Gheesling, E. B. (S)-----          | Norwood, Ga.     |
| Floyd, E. E. (3 CE)-----           | Lake City             | Gianpalo, N. J. (3 Ed)-----        | Derby, Conn.     |
| Floyd, G. W. (2 Ag Ec)-----        | Galivants Ferry       | Gibert, J. M. (1 Ag Engr)†-----    | Willington       |
| Floyd, H. L. (1 T)†-----           | Sanford, N. C.        | Gibson, F. M. (2 TC)-----          | Greenville       |
| Floyd, L. O. (2 EE)-----           | Scranton              | Gillespie, R. M. (4 CE)-----       | Seneca           |
| Folk, K. S. (1 GS)†-----           | Holly Hill            | Gilliam, L. G. (4 CE)-----         | Union            |
| Folsom, J. B. (1 E)†-----          | Sumter                | Gilmer, R. L. (1 GS)†-----         | Anderson         |
| Ford, F. T. (1 E)†-----            | Charleston            | Gilmore, W. C. (2 WD)-----         | Greenville       |
| Ford, J. T. (1 A)†-----            | Baltimore, Md.        | Ginn, W. N. (3 ME)-----            | Varnville        |
| Ford, R. J. (1 Ch-Engr)†-----      | Wesleyville, Pa.      | Gleason, R. N. (2 A)-----          | Seneca           |
| Ford, Z. T. (3 Agr)-----           | Nichols               | Glenn, C. J. (1 T)†-----           | Pendleton        |
| Forester, R. C. (4 T)-----         | Sumter                | Glenn, D. M. (2 T)-----            | Union            |
| Forester, W. W. (1 Ch-Engr)†-----  | Sumter                | Glenn, G. R. (1 E)†-----           | Anderson         |
| Forsythe, R. G. (4 Ch-Engr)-----   | Hendersonville, N. C. | Glenn, J. Davis, (2 CE)-----       | Fair Play        |
| Fortunato, F. N. (2 T)-----        | Bethlehem, Pa.        | Glenn, J. Douthit (2 ME)-----      | Pendleton        |
| Foster, H. B. (3 T)-----           | Greenville            | Glenn, J. P. (3 ME)-----           | Anderson         |
| Foster, J. W. P. (2 GS)-----       | Summerville           | Glenn, R. M. (2 T)-----            | Anderson         |
| Foster, S. V. (2 V Ag Ed)-----     | Gaffney               | Goblet, G. F. (2 I Ed)-----        | Mt. Pleasant     |
| Foster, W. C. (2 I Ed)-----        | Spartanburg           | Godfrey, J. H. (2 T)-----          | Fort Mill        |
| Foster, W. J. (2 EE)-----          | Spartanburg           | Godley, W. C. (1 A)†-----          | Miley            |
| Foster, W. W. (4 T)-----           | Greenville            | Godsey, J. C. (3 Ch-Engr)-----     | Laurens          |
| Fowler, F. B. (1 GS)†-----         | Union                 | Goggans, W. H. (1 Pre-Med)†-----   | Newberry         |
| Fowler, J. D. (2 A)-----           | Shelby, N. C.         | Golding, E. V. (3 EE)-----         | Waterloo         |
| Fox, F. M. (2 T)-----              | Batesburg             | Good, J. D. (1 E)†-----            | Sharon           |
| Frank, M. (3 WD)-----              | Forest Hills, N. Y.   | Goodman, J. L. (2 CE)-----         | Clemson          |
| Franks, W. H. (1 E)†-----          | Laurens               | Goodman, J. R. (2 CE)-----         | Clemson          |
| Frazier, J. R. (4 CE)-----         | Blairs                | Goodman, J. S. (2 EE)-----         | Clemson          |
| Free, B. D. (2 I Ed)-----          | Ninety Six            | Goodman, M. R. (2 Ch-Engr)-----    | Rock Hill        |
| Freeman, E. A. (3 C)-----          | Anderson              | Goodson, H. B. (1 A)†-----         | Florence         |
| Freeman, P. N. (3 ME)-----         | Charleston            | Goodson, T. E. (4 Ar)-----         | Hartsville       |
| Freeny, S. W. (1 E)†-----          | Annapolis, Md.        | Gore, J. P. (4 EE)-----            | Asheville, N. C. |
| Fritts, G. H. (2 V Ag Ed)-----     | Lenoir City, Tenn.    | Gore, N. V. (3 T)-----             | Asheville, N. C. |
| Frowein, J. N. (2 A)-----          | Spartanburg           | Gorman, H. (2 EE)-----             | Greenville       |
| Fulmer, H. P. (3 Agr)-----         | Chapin                | Gossett, O. J. (1 E)†-----         | Woodruff         |
| Fulmer, R. B. (4 T)-----           | Leesville             | Goudelock, G. E. (1 Pre-Med)†----- | Hartsville       |
| Funderburk, C. (1 V Ag Ed)†-----   | Lancaster             | Graham, A. D. (4 TC)-----          | Rock Hill        |
| Furman, E. P. (1 GS)-----          | Allendale             | Graham, C. C. (2 V Ag Ed)-----     | Mt. Ulla, N. C.  |
| Furqueron, G. M. (1 Pre-Med)†----- | McCormick             | Graham, J. H. (2 A)-----           | Anderson         |
| Furtick, O. K. (4 V Ag Ed)-----    | Springfield           | Graham, J. S. (1 T)†-----          | Donalds          |
| Fuseler, H. W. (3 EE)-----         | Charleston            | Graham, R. L. (2 EE)-----          | Greenville       |
| Futch, C. W. (1 Pre-Med)†-----     | Ware Shoals           | Graham, W. A. (1 T)†-----          | Salisbury, N. C. |
| Futral, J. W. (1 E)†-----          | Wadley, Ga.           | Graham, W. H. (1 V Ag Ed)†-----    | Anderson         |
| Gage, G. W. (4 E)-----             | Anderson              | Gramling, A. C. (1 V Ag Ed)-----   | Orangeburg       |
| Gage, T. W. (2 EE)-----            | Anderson              | Gramling, F. W. (3 V Ag Ed)-----   | Orangeburg       |
| Gailey, D. C. (1 A)†-----          | Iva                   | Gramling, J. M. (1 A)†-----        | Orangeburg       |
| Gaillard, R. K. (1 A)-----         | Eutawville            | Gramling, R. M. (4 V Ag Ed)-----   | Orangeburg       |
| Gaillard, W. S. (4 AH)-----        | Eutawville            | Gramling, W. H. (3 V Ag Ed)-----   | Orangeburg       |
| Gall, V. R. (1 T)†-----            | Batesburg             | Grant, T. F. (2 WD)-----           | Chester          |
| Gallman, C. H. (1 T)†-----         | York                  | Grantham, D. L. (1 Ar)-----        | Savannah, Ga.    |
| Galway, J. W. (2 EE)-----          | Greenville            | Graves, C. C. (2 Pre-Med)-----     | Pageland         |
| Gamble, J. B. (2 A)-----           | Turbeville            | Graves, J. L. (2 V Ag Ed)-----     | Ravenels         |
|                                    |                       | Gray, B. E. (2 EE)†-----           | Charleston       |



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| Gray, F. F. (4 EE)            | Greenville            | Hare, J. F. (1 GS)†           | Elmira, N. Y.        |
| Gray, James B. (1 GS)†        | Timmonsville          | Harley, J. H. (2 CE)          | St. George           |
| Gray, Julian B. (1 E)†        | Greenville            | Harley, T. R. (4 C)           | Hartsville           |
| Gray, J. F. (4 D)             | Franklin, N. C.       | Harmon, L. C. (3 TC)          | Concord, N. C.       |
| Gray, W. J. (2 V Ag Ed)       | Allendale             | Harper, J. J. (4 ME)          | Seneca               |
| Grayson, J. H. (2 Pre-Med)    | Yonges Island         | Harper, S. D. (3 CE)          | Florence             |
| Green, A. B. (1 Pre-Med)      | Clayton, Ga.          | Harper, S. M. (3 EE)          | Andrews              |
| Green, A. E. (1 E)†           | Florence              | Harper, W. E. (2 V Ag Ed)     | Honea Path           |
| Green, F. D. (2 Ent)          | Rock Hill             | Harrington, L. B. (2 A)       | Manning              |
| Green, F. W. (1 V Ag Ed)†     | Turbeville            | Harris, H. L. (4 V Ag Ed)     | Conway               |
| Green, G. B. (3 EE)           | Columbia              | Harris, R. T. (1 V Ag Ed)†    | Westminster          |
| Green, J. K. (1 T)†           | Taylors               | Harris, W. M. (2 V Ag Ed)     | Westminster          |
| Green, J. P. (1 Pre-Med)†     | Clayton, Ga.          | Harrison, B. S. (4 GS)        | Rocky Mount, N. C.   |
| Greene, C. L. (3 EE)          | Williston             | Harrison, B. W. (1 Ch-Engr)†  | Kingstree            |
| Greene, W. (2 Pre-Med)        | Sumter                | Harrison, E. L. (2 ME)        | Abbeville            |
| Greene, W. A. (4 T)           | Orangeburg            | Harrison, F. H. (1 T)†        | Columbia             |
| Gregg, F. A. (2 GS)           | Mars Bluff            | Harrison, J. R. (3 CE)        | Abbeville            |
| Gregg, H. R. (3 Agr)          | Florence              | Hart, B. B. (2 TC)            | Anderson             |
| Gregory, A. H. (3 Tc)†        | Greenville            | Harter, J. R. (4 V Ag Ed)     | Fairfax              |
| Gregory, J. F. (3 C)          | Pauline               | Hartley, J. C. (3 EE & ME)    | Greenwood            |
| Gregory, J. L. (3 T)          | Lockhart              | Harvey, J. M. (1 Ch-Engr)     | Jacksonville, Fla.   |
| Gregory, P. A. (2 T)          | Marietta, Ga.         | Haselden, S. Y. (1 Pre-Med)†  | Florence             |
| Gregory, W. W. (3 T)          | Inman                 | Hasell, S. M. (2 ME)          | Charleston           |
| Griffin, J. R. C. (2 T)       | Anderson              | Hawkins, A. (3 CE)            | Cliffside, N. C.     |
| Griffith, J. B. (2 V Ag Ed)   | Liberty               | Hawkins, B. V. (4 Hort)       | Campobello           |
| Grimball, I. H. (4 T)         | Greenville            | Hawkins, G. F. (S)            | Clemson              |
| Grimball, T. P. (4 CE)        | Johns Island          | Hawkins, M. R. (2 EE)         | Charleston           |
| Grimes, T. E. (1 Pre-Med)†    | Sumter                | Hawkins, T. P. (4 Ar)         | Lincolnton, N. C.    |
| Grist, J. (1 E)†              | Sharon                | Hawkins, W. C. (2 TIE)        | Central              |
| Groce, L. A. (3 Ar)           | Lyman                 | Hayden, E. A. (3 ME)          | Augusta, Ga.         |
| Groot, H. A. (2 C)            | Jacksonville, Fla.    | Hayes, C. B. (4 T)            | Lyman                |
| Grossman, M. N. (1 A)†        | Brooklyn, N. Y.       | Heape, J. M. (4 T)            | Charleston           |
| Grubb, L. G. (1 T)            | Salisbury, N. C.      | Hearon, R. L. (4 Ag Engr)     | Bishopville          |
| Guess, J. B. (3 D)            | Denmark               | Heath, G. B. (1 T)†           | Chester              |
| Guest, T. F. (2 GS)           | Marietta              | Hedden, F. H. (2 Ag Engr)     | Walhalla             |
| Guyton, G. G. (4 TC)          | Sumter                | Hegler, T. C. (2 T)           | Kershaw              |
| Guyton, P. V. (1 E)†          | Pelzer                | Heinsohn, J. H. (2 ME)        | Charleston           |
| Guyton, R. A. (3 V Ag Ed)     | Marion                | Hemphill, J. C. (2 Ar)        | Columbia             |
| Gwin, C. W. (3 Hort)          | Augusta, Ga.          | Hempstead, R. L. (3 Ch-Engr)  | Atlanta, Ga.         |
| Hackett, C. B. (4 T)          | Spartanburg           | Henderson, H. C. (2 ME)       | Charlotte, N. C.     |
| Haddon, A. J. (2 T)           | Greenwood             | Henderson, J. C. (2 GS)       | Greenville           |
| Hadden, A. J. (2 ME)          | Brooklyn, N. Y.       | Henderson, J. R. (3 EE)       | Verdery              |
| Hahn, H. T. (1 T)†            | Greenwood             | Henderson, W. N. (3 Agr)      | Ninety Six           |
| Hair, B. B. (3 Ag Ec)         | Greenwood             | Hendricks, G. H. (3 T)        | Easley               |
| Hall, H. P. (4 ME)            | Clemson               | Hendricks, L. N. (1 E)†       | Clemson              |
| Hall, J. H. (1 A)†            | West Palm Beach, Fla. | Hendricks, S. E. (1 V Ag Ed)† | Dacusville           |
| Hall, L. W. (4 V Ag Ed)       | Iva                   | Hendrix, R. M. (3 V Ag Ed)†   | Greer                |
| Hall, R. T. (3 TC)            | Cassatt               | Hendrix, W. E. (1 E)†         | Spartanburg          |
| Hall, W. A. (3 GS)            | Keyport, Wash.        | Heniford, B. M. (4 Ent)       | Loris                |
| Hallman, W. E. (3 Ar)         | Aiken                 | Henriquez, G. D. (3 AH)       | Havana, Cuba         |
| Hambright, C. I. (2 Ed)       | Greenville            | Henry, A. M. (3 S)†           | Clemson              |
| Hambright, P. R. (2 V Ag Ed)† | Grover, N. C.         | Henry, G. C. (3 T)            | Spartanburg          |
| Hamer, J. R. (2 A)            | Clio                  | Henry, R. E. S. (2 ME)        | Clemson              |
| Hamilton, B. (2 V Ag Ed)      | Fort Mill             | Henry, W. J. (2 TC)           | Chester              |
| Hamilton, G. R. (3 D & Hort)  | Anderson              | Heriot, J. D. (4 Ag Engr)     | Dalzell              |
| Hamilton, J. E. (2 T)         | Durham, N. C.         | Herlong, D. C. (2 V Ag Ed)    | Johnston             |
| Hammett, C. M. (1 E)†         | Taylors               | Herlong, J. B. (3 V Ag Ed)    | Johnston             |
| Hammond, C. E. (2 EE)         | Fairfax               | Herlong, P. B. (1 V Ag Ed)†   | Johnston             |
| Hammond, J. G. (4 T)          | Greenwood             | Herndon, F. M. (3 T)          | Hartwell, Ga.        |
| Hammond, L. C. (2 A)          | Seneca                | Herrington, J. C. (1 GS)†     | Anderson             |
| Hammond, R. M. (1 Ed)†        | Anderson              | Herrington, C. L. (3 Agr)     | Waynesboro, Ga.      |
| Hampton, C. O. (2 EE)         | Lockhart              | Hester, B. F. (3 T)           | Ellenton             |
| Hance, G. W. (4 V Ag Ed)      | Heath Springs         | Hester, H. E. (1 E)†          | McCormick            |
| Hancock, D. W. (3 Ent)        | Ruby                  | Hester, T. D. (1 E)†          | Wagner               |
| Hand, R. B. (1 E)†            | Florence              | Hewitt, D. J. (1 E)†          | Florence             |
| Hanna, H. H. (4 D)            | Blacksburg            | Hickerson, F. R. (1 E)†       | Morris Plains, N. J. |
| Hanna, L. G. (4 V Ag Ed)      | Hemingway             | Hickerson, R. A. (3 T)        | Morris Plains, N. J. |
| Hanvey, G. C. (3 ME)          | Portsmouth, Va.       | Hicks, L. B. (1 E)†           | Charleston           |
| Hanvey, W. H. (1 E)†          | McCormick             | Hicks, L. H. (3 V Ag Ed)†     | Kings Creek          |
| Hardee, E. S. (2 V Ag Ed)     | Conway                | Hicks, W. L. (4 EE)           | Forest City, N. C.   |
| Hardee, H. B. (1 Pre-Med)†    | Conway                | Hickson, E. L. (2 ME)         | Cheraw               |
| Hardee, J. C. (4 Agr)         | Loris                 | Hiers, M. D. (4 I Ed)         | Columbia             |
| Hardee, N. K. (1 A)†          | Loris                 | Higgins, C. R. (1 E)†         | Easley               |
| Hardin, L. H. (2 EE)†         | Charleston            | Higgins, J. C. (2 Ar)         | Rock Hill            |
|                               |                       | Hilburn, J. E. (2 EE)         | Dublin, Ga.          |

| Name and Course                  | Address           | Name and Course              | Address           |
|----------------------------------|-------------------|------------------------------|-------------------|
| Hill, D. K. (2 Ag Ec)            | Effingham         | Hungerford, D. S. (1 A)†     | Spartanburg       |
| Hill, D. N. (3 T)                | Abbeville         | Hunt, B. D. (4 I Ed)         | Westminster       |
| Hill, H. B. (3 GS)               | Lake City         | Hunt, F. M. (4 TIE)          | Liberty           |
| Hill, J. F. (1 E)†               | Edneyville, N. C. | Hunt, S. C. (4 EE)           | Greenville        |
| Hill, O. M. (1 E)†               | Greenville        | Hunter, Bill (2 CE)          | Spartanburg       |
| Hinnant, C. R. (2 Ent)           | Ridgeway          | Hunter, E. D. (3 T)          | Edisto Island     |
| Hinnant, F. K. (3 Ent)           | Ridgeway          | Hunter, J. C. (4 GS)         | Liberty           |
| Hinson, F. M. (2 Ag Engr)†       | Bennettsville     | Hunter, M. R. (2 Pre-Med)    | Gray Court        |
| Hinson, L. C. (3 T)              | Scranton          | Hunter, R. V. (3 Ag Ec)      | Ellenton          |
| Hinton, O. T. (1 E)†             | Pickens           | Huntley, D. M. (3 V Ag Ed)   | Ruby              |
| Hite, C. W. (3 T)                | Bennettsville     | Hurst, F. M. (3 EE)          | Anderson          |
| Hite, H. B. (1 V Ag Ed)†         | Batesburg         | Hurst, G. H. (1 Ch-Engr)†    | Sumter            |
| Hobson, F. C. (1 E)†             | Clover            | Hyder, B. G. (2 Ar)          | Gaffney           |
| Hobson, W. M. (2 A)              | Belton            | Inabinet, F. H. (3 Agr)      | Orangeburg        |
| Hodges, J. L. (1 E)†             | Blenheim          | Ingram, A. C. (2 A)†         | Ridgeland         |
| Hodges, J. P. (2 A)              | Blenheim          | Ingram, A. M. (2 A)†         | Ridgeland         |
| Hoefler, F. W. (1 E)†            | Columbia          | Ingram, C. H. (1 E)†         | Hartsville        |
| Hoffman, C. A. (1 Ch-Engr)†      | Kingston, Pa.     | Ingram, C. O. (2 V Ag Ed)    | Ridgeland         |
| Hoffman, R. (1 E)†               | North             | Irby, G. S. (4 C)            | Woodruff          |
| Hogan, E. R. (2 A)†              | Ellerbe, N. C.    | Irby, W. C. (2 ME)           | Florence          |
| Holcombe, R. O. (4 T)            | Fountain Inn      | Irick, E. F. (3 GS)          | Elloree           |
| Holley, E. B. (2 ME)             | Aiken             | Irwin, G. W. (1 E)†          | Sandersville, Ga. |
| Holley, F. L. (3 A)              | Aiken             | Ivey, E. M. (4 T)            | LaGrange, Ga.     |
| Holliday, J. C. (2V Ag Ed)       | Liberty           | Ivey, F. M. (1 T)†           | Savannah, Ga.     |
| Holliday, W. W. (2 A)            | Kingstree         | Ivey, J. D. (4 ME)           | LaGrange, Ga.     |
| Hollingsworth, C. K. (3 V Ag Ed) | Troy              | Jackson, C. C. (3 V Ag Ed)   | Camden            |
| Hollingsworth, J. L. (1 E)†      | Greenwood         | Jackson, E. C. (3 V Ag Ed)   | Starr             |
| Hollis, H. W. (2 A)              | Rock Hill         | Jackson, J. C. (2 V Ag Ed)   | Edgefield         |
| Holman, J. A. (1 E)†             | Anderson          | Jackson, N. (2 T)            | Tryon, N. C.      |
| Holmes, F. S. (3 EE)             | Denmark           | Jackson, R. N. (1 Ar)        | Gray Court        |
| Holmes, H. H. (2 Pre-Med)        | Conway            | Jackson, W. L. (4 Hort)      | Camden            |
| Holroyd, R. E. (3 Ar)            | Anderson          | Jackson, W. O. (4 V Ag Ed)   | Starr             |
| Holtzendorff, P. B. (3 GS)       | Clemson           | Jackson, W. S. (1 V Ag Ed)†  | Manning           |
| Honeycutt, R. E. (1 T)           | Kannapolis, N. C. | Jacobs, O. (1 Ar)†           | Laurens           |
| Hood, F. M. (1 Ag Engr)†         | Sharon            | Jacchel, H. E. (2 EE)        | Beaufort          |
| Hooks, A. V. (2 CE)              | Columbia          | James, B. M. (2 CE)          | De Pere, Wis.     |
| Hooks, S. T. (1 E)†              | Goldsboro, N. C.  | James, C. A. (1 A)†          | Dumont, N. J.     |
| Hoover, E. F. (1 V Ag Ed)†       | North             | James, G. H. (4 T)           | Greenville        |
| Hoppes, B. W. (1 E)†             | Reading, Pa.      | James, R. S. (1 Ar)†         | Sumter            |
| Horne, W. L. (3 Ar)              | Greenwood         | Jameson, C. R. (1 A)†        | Easley            |
| Horton, C. C. (2 Pre-Med)        | Pendleton         | Jameson, L. H. (2 T)         | Easley            |
| Horton, F. H. (3 GS)             | Columbia          | Jaudon, R. H. (2 EE)         | Spartanburg       |
| Horton, J. I. (3 GS)             | Columbia          | Jay, J. E. (4 TIE)           | Greenville        |
| Horton, L. S. (4 V Ag Ed)        | Pageland          | Jeffcoat, B. D. (4 AH)       | Florence          |
| Horton, R. E. (3 Agr)            | Pageland          | Jeffcoat, C. E. (1 V Ag Ed)† | North             |
| Horton, T. M. (1 Pre-Med)†       | Pendleton         | Jenkins, C. D. (1 E)†        | Simpsonville      |
| Horton, V. F. (2 V Ag Ed)        | Angelus           | Jenkins, M. E. (2 C)         | Charleston        |
| Hotkowski, A. F. (1 E)†          | Deep River, Conn. | Jenkins, M. I. (3 AH)        | Yonges Island     |
| Houck, J. L. (4 ME)              | Cordova           | Jenkins, S. T. (3 T)         | Mayodan, N. C.    |
| Hough, J. S. (3 V Ag Ed)         | Edgefield         | Jenkins, W. G. (2 EE)†       | Kline             |
| Houghton, J. B. (2 ME)           | Charleston        | Jenkins, W. T. (1 E)†        | Rock Hill         |
| Howard, C. H. (1 E)†             | Batesburg         | Jennings, K. B. (2 Ar)       | Charleston        |
| Howard, C. R. (2 TC)             | North Augusta     | Jernigan, W. A. (2 EE)       | Florence          |
| Howard, J. W. (3 T)              | Greenville        | Jessen, H. H. (2 EE)         | Summerville       |
| Howell, R. F. (1 E)†             | Santuck           | Johnson, A. B. (3 Ar)        | Spartanburg       |
| Hubbard, J. C. (2 WD)            | Lancaster         | Johnson, E. M. (2 Ag Engr)   | Aiken             |
| Hubbard, R. C. (4 V Ag Ed)       | Seneca            | Johnson, H. A. (4 D)         | Aiken             |
| Huckaby, J. P. (4 V Ag Ed)       | Enoree            | Johnson, H. C. (2 ME)        | Trenton           |
| Hudnall, M. B. (1 E)†            | Sumter            | Johnson, J. W. (4 V Ag Ed)   | Easley            |
| Hudnell, H. (1 E)†               | Suffolk, Va.      | Johnson, L. M. (4 V Ag Ed)   | Edgefield         |
| Hudson, J. E. (1 Pre-Med)†       | Greenville        | Johnson, O. H. (2 A)         | Nesmith           |
| Huff, R. B. (4 C)                | Charleston        | Johnson, R. C. (3 T)         | Chappells         |
| Hufford, R. G. (1 E)†            | Clemson           | Johnson, R. L. (1 GS)†       | Florence          |
| Huffstetler, W. R. (1 Ag Ed)†    | Chapin            | Johnson, W. A. (1 E)†        | Hamlet, N. C.     |
| Huggin, F. E. (2 EE)             | Gaffney           | Johnson, W. C. (1 T)†        | Greenville        |
| Huggins, J. T. (1 Pre-Med)†      | Johnsonville      | Johnston, A. E. (2 T)        | Greenville        |
| Huggins, J. W. (1 GS)†           | Lamar             | Johnston, T. E. (1 E)†       | Clover            |
| Hughes, R. A. (2 T)              | Ninety Six        | Jolly, G. C. (4 T)           | Anderson          |
| Hughes, S. C. (2 GS)             | Hampton           | Jones, C. L. (3 GS)          | Columbia          |
| Hughes, W. C. (1 I Ed)†          | Norway            | Jones, E. C. (1 E)†          | Navy Yard         |
| Hughey, C. S. (1 Pre-Med)        | Greer             | Jones, E. L. (2 V Ag Ed)     | Lake City         |
| Hughey, J. D. (4 V Ag Ed)        | Greer             | Jones, G. W. (2 V Ag Ed)     | Greenville        |
| Huguenin, E. P. (2 V Ag Ad)      | Ridgeland         | Jones, H. C. (4 GS)          | Saluda            |
| Huist, W. C. (1 A)               | Johnston          | Jones, H. E. (3 ME)          | Pickens           |
| Humphries, T. S. (S)†            | Newberry          | Jones, J. B. (4 Ch-Engr)     | Buffalo           |



| Name and Course                   | Address                | Name and Course                 | Address           |
|-----------------------------------|------------------------|---------------------------------|-------------------|
| Jones, J. C. (1 T)†               | Lancaster              | Land, J. S. (4 CE)              | Columbia          |
| Jones, J. D. (3 T)                | Buffalo                | Lane, C. S. (4 ME)              | Timmons ville     |
| Jones, J. H. (3 Ag Engr)          | Boiling Springs, N. C. | Lane, E. E. (2 A)               | Smithboro         |
| Jones, L. T. (1 A)                | Congaree               | Lane, J. V. (2 GS)              | Dillon            |
| Jones, R. H. (2 T)                | Greenwood              | Lane, T. L. (1 Ag Engr)†        | Lamar             |
| Jones, R. L. (1 A)†               | Gaffney                | Lanford, L. E. (4 V Ag Ed)      | Woodruff          |
| Jones, S. J. (2 EE)               | Walterboro             | Lang, E. R. (1 GS)†             | Swampscott, Mass. |
| Jones, W. I. (2 Pre-Med)          | Great Falls            | Lange, F. D. (1 Ch-Engr)†       | Audubon, N. J.    |
| Jordan, J. E. (2 V Ag Ed)         | Jefferson              | Langford, R. H. (3 EE)          | Saluda            |
| Jordan, L. R. (2 T)               | Columbia               | Lanham, W. J. (1 A)†            | Edgefield         |
| Jordan, W. W. (4 V Ag Ed)         | Timmons ville          | LaRoche, E. A. (2 T)            | Johns Island      |
| Josey, H. A. (2 T)                | Anderson               | LaRoche, J. J. (4 GS)           | Charleston        |
| Josselson, B. (1 A)†              | Yemassee               | Latimer, H. R. (1 A)†           | Honea Path        |
| Joyce, D. T. (4 AH)               | Greenwood              | Law, W. C. (4 GS)               | Hartsville        |
| Julian, F. M. (S)                 | Westminster            | Lawhon, B. P. (1 Ch-Engr)†      | Hartsville        |
| Kalwitz, M. F. (2 ME)             | Park Ridge, Ill.       | Lawrence, J. M. (2 A)           | Seneca            |
| Kay, C. W. (2 T)                  | Anderson               | Lawton, C. B. (4 C)             | Fairfax           |
| Kay, R. A. (1 TC)†                | Anderson               | Lawton, J. G. (4 GS)            | York              |
| Kay, R. L. (2 C)                  | Walhalla               | Lawton, M. R. (4 GS)            | Garnett           |
| Kearse, F. M. (3 AH)              | Ehrhardt               | Lazar, J. T. (1 A)†             | Florence          |
| Kearse, W. H. (3 ME)              | Olar                   | Leake, F. S. (2 A)              | Fountain Inn      |
| Keel, S. T. (4 CE)                | Allendale              | Lee, F. (1 GS)†                 | Greenwood         |
| Kellett, J. E. (1 A)†             | Fountain Inn           | Lee, J. B. (4 I Ed)             | Alcolu            |
| Kelley, J. A. (2 Ar)              | Liberty                | Lee, R. E. (1 Pre-Med)†         | Alcolu            |
| Kelley, T. L. (1 E)†              | Hartsville             | Lee, W. K. (3 EE)†              | Greenville        |
| Kelly, B. N. (1 A)                | Union                  | Lefter, A. L. (2 TC)            | Spartanburg       |
| Kelly, J. F. (1 T)†               | Anderson               | Legare, E. V. (2 A)             | Johns Island      |
| Kelly, J. G. (3 T)                | Rock Hill              | Leigh, H. D. (4 ME)             | Savannah, Ga.     |
| Kennedy, D. B. (2 CE)             | Charleston             | LeMaster, H. H. (2 A)           | Gaffney           |
| Kennedy, H. M. (2 T)              | New Zion               | LeMaster, H. L. (3 AH)          | Gaffney           |
| Kerchmar, A. (3 Ed)               | Bethlehem, Pa.         | Lemmon, B. D. (1 E)†            | Myrtle Beach      |
| Kerhulas, T. E. (4 GS)            | Union                  | Lemmon, J. C. (4 AH)            | Winnboro          |
| Keys, J. E. (1 C)†                | Walhalla               | Leonard, B. R. (2 V Ag Ed)      | Donalds           |
| Keziah, J. R. (1 T)†              | Pageland               | Leonard, W. A. (1 V Ag Ed)†     | Woodruff          |
| Kienzie, W. J. (4 ME)             | Bethlehem, Pa.         | Leonhirth, W. (3 T)             | Sumter            |
| Killingsworth, T. E. (1 Ch-Engr)† | Aiken                  | Leppard, B. A. (1 E)†           | Greenville        |
| Kimberly, K. R. (S)               | Eastman, Ga.           | LeRoy, M. R. (1 C)†             | Greenwood         |
| Kindler, W. C. (2 Ar)             | Kingstree              | Lesesne, C. B. (2 GS)           | Columbia          |
| King, A. P. (3 Agr)               | Ninety Six             | Lesesne, E. H. (3 CE)           | Charleston        |
| King, B. N. (2 V Ag Ed)           | Loris                  | Lester, J. R. (2 A)             | Newberry          |
| King, G. E. (2 A)                 | McBee                  | Lever, J. J. (3 Ag Ec)          | Columbia          |
| King, H. O. (1 T)†                | Clinton                | Lever, J. Q. (2 CE)             | Columbia          |
| King, J. D. (2 V Ag Ed)†          | Piedmont               | Levin, J. H. (4 TC)             | Beaufort          |
| King, M. L. (2 Ch-Engr)           | Clemson                | Levine, L. J. (2 EE)            | Lake City         |
| King, R. A. (4 T)                 | Abbeville              | Lewis, A. D. (2 A)              | Aynor             |
| King, W. L. (1 E)†                | Pendleton              | Lewis, Y. G. (1 A)†             | Blackstock        |
| Kirby, G. W. (3 T)                | Greenville             | Lightsey, J. Harold, (4 Agr)    | Fairfax           |
| Kirby, H. L. (1 E)†               | Union                  | Lightsey, J. Herman (2 Ag Engr) | Brunson           |
| Kirby, M. D. (4 Agr)              | Timmons ville          | Ligon, L. S. (1 T)†             | Greenville        |
| Kirchner, A. H. (4 GS)            | Greenville             | Ligon, W. C. (1 GS)†            | Rock Hill         |
| Kirchner, G. F. (S)               | Greenville             | Ligon, W. S. (2 T)              | Anderson          |
| Kirkland, R. W. (3 ME)            | Newberry               | Liles, J. R. (4 CE)             | Charlotte, N. C.  |
| Kirkpatrick, O. S. (2 V Ag Ed)    | Great Falls            | Linder, B. E. (2 V Ag Ed)       | Gaffney           |
| Kirven, W. W. (2 Ag Engr)         | Darlington             | Lindler, H. R. (2 A)            | Chapin            |
| Kiser, J. P. (2 EE)               | Bowman                 | Lindsay, H. N. (2 GS)           | Clemson           |
| Kiser, W. R. (2 Pre-Med)          | Laurens                | Lindsay, M. D. (1 Pre-Med)†     | Clemson           |
| Kivett, T. L. (3 Ar)              | Greenville             | Lindsay, R. J. (4 EE)           | Chester           |
| Klinek, J. M. (2 Pre-Med)         | North Augusta          | Lindsay, W. D. (1 T)            | Chester           |
| Klugh, A. M. (1 Pre-Med)†         | Anderson               | Liner, R. A. (1 T)†             | Greenwood         |
| Klugh, T. S. (3 T)                | Clemson                | Link, R. A. (2 C)               | Abbeville         |
| Kneece, J. D. (2 A)               | Gilbert                | Little, J. F. (3 T)             | Belton            |
| Knight, B. B. (1 E)†              | Greenville             | Little, W. H. (4 WD)            | Belton            |
| Knight, S. A. (1 Ag Engr)†        | Summerville            | Littlejohn, A. C. (2 GS)        | Jonesville        |
| Knipe, C. J. (1 A)†               | Bethlehem, Pa.         | Littlejohn, C. E. (4 Ch-Engr)   | Raleigh, N. C.    |
| Knox, H. B. (4 T)                 | Iva                    | Livingston, G. F. (3 Ch-Engr)   | Leesville         |
| Kolb, K. W. (4 Ch-Engr)           | Savannah, Ga.          | Livingston, W. D. (1 TC)†       | Charleston        |
| Konduros, G. G. (1 T)†            | Anderson               | Locklair, E. L. (1 V Ag Ed)†    | Great Falls       |
| Kratzer, B. E. (1 E)†             | Bethlehem, Pa.         | Lominack, E. K. (4 I Ed)        | Newberry          |
| Kronstadt, R. (3 C)†              | Bronx, N. Y. City      | London, J. R. (3 I Ed)          | Rock Hill         |
| Lachicotte, A. S. (3 TC)          | Waverly Mills          | Long, H. E. (1 Pre-Med)†        | Leesville         |
| Ladd, D. C. (1 E)†                | Dawkins                | Long, J. T. (1 E)†              | Piedmont          |
| Lally, T. C. (1 GS)†              | Greenwich, Conn.       | Long, R. F. (2 ME)              | Bethlehem, Pa.    |
| Lambrakos, P. C. (1 E)†           | Charleston             | Long, S. (4 EE)†                | Chesterfield      |
| Lancaster, S. (3 T)               | Spartanburg            | Loshbough, L. F. (2 E)†         | Chicago, Ill.     |
|                                   |                        | Loughlin, W. J. (2 EE)          | Cos Cob, Conn.    |

| Name and Course              | Address               | Name and Course               | Address               |
|------------------------------|-----------------------|-------------------------------|-----------------------|
| Lovell, W. C. (1 A)†         | Gresham               | McMahan, E. O. (3 C)          | Laurinburg, N. C.     |
| Lowder, J. M. (3 V Ag Ed)    | Turbeville            | McMakin, G. C. (4 Ch-Engr)    | Wellford              |
| Lowe, W. H. (3 T)            | Caroleen, N. C.       | McMaster, J. F. (3 T)         | Winnboro              |
| Lowman, C. B. (1 V Ag Ed)†   | Columbia              | McMillan, G. M. (4 T)         | Cattanooga, Tenn.     |
| Lucius, C. G. (2 A)          | West Palm Beach, Fla. | McMillan, H. O. (2 Ag Engr)   | Minneapolis, Minn.    |
| Lybrand, W. M. (2 T)         | Charlotte, N. C.      | McMillan, J. A. (3 Pre-Med)   | Bamberg               |
| Lynch, R. M. (3 ME)          | East Orange, N. J.    | McMillan, J. F. (2 TC)        | Clinton               |
| Lynn, M. H. (3 Agr)          | Richburg              | McNair, H. S. (3 T)           | Patrick               |
| Lytton, C. P. (1 I Ed)†      | Gastonia, N. C.       | McNair, T. T. (4 GS)          | Salley                |
| Lytton, J. L. (3 Ar)         | Cheraw                | McNair, W. H. (3 Agr)         | Gable                 |
| Lytton, J. O. (1 A)†         | Gastonia, N. C.       | McNeese, B. P. (1 A)†         | Hartsville            |
| Lytton, K. G. (3 Agr)        | Gastonia, N. C.       | McNeill, J. A. (1 A)†         | Effingham             |
| McAdams, D. A. (3 T)         | Iva                   | McPhail, F. E. (4 V Ag Ed)    | Iva                   |
| McAlister, P. W. (3 T)       | Greenville            | McRae, J. R. (1 A)†           | Minturn               |
| McAlpine, L. E. (4 EE)       | Union                 | McTeer, T. A. (2 CE)          | McClellanville        |
| McBratney, J. T. (1 GS)†     | Florence              | McWilliams, J. (1 E)†         | New York, N. Y.       |
| McCants, R. O. (1 Ed)†       | Andrews               | Macartney, O. K. (4 T)        | Alta Vista, Va.       |
| McCarthy, J. J. (1 GS)†      | Manasquan, N. J.      | Mace, J. (1 A)†               | Centenary             |
| McClain, I. F. (1 T)†        | Anderson              | Mace, J. S. (3 Ch-Engr)       | Charleston            |
| McClam, M. (1 V Ag Ed)†      | Leo                   | Mackintosh, R. H. (2 Pre-Med) | Rock Hill             |
| McClam, R. L. (2 V Ag Ed)    | Leo                   | Macmurfurphy, W. C. (1 E)†    | Charleston            |
| McClanahan, W. A. (2 C)      | Spartanburg           | Macomson, P. T. (1 A)†        | Spartanburg           |
| McClure, G. W. (4 Agr)       | Franklin, N. C.       | Macpherson, W. J. (2 ME)      | Brunswick, Ga.        |
| McClure, J. B. (4 Hort)      | Anderson              | Maness, H. M. (1 E)†          | Biscoe, N. C.         |
| McComb, J. T. (1 A)†         | Troy                  | Maness, L. E. (3 CE)          | Georgetown            |
| McConnell, F. F. (2 C)       | Anderson              | Manley, W. A. (1 E)†          | Decatur, Ga.          |
| McCorkle, P. H. (4 GS)       | York                  | Manly, J. B. (1 E)†           | Anderson              |
| McCorkle, R. L. (1 GS)†      | York                  | Mann, P. H. (1 E)†            | Abbeville             |
| McCorsley, E. F. (1 C)       | Little River          | Manning, L. W. (4 EE)         | Latta                 |
| McCoy, J. H. (2 Ar)          | Sumter                | Manning, W. H. (4 Ag Engr)    | Barnwell              |
| McCoy, W. T. (3 T)           | Camden                | Manville, E. P. (2 EE)        | Tryon, N. C.          |
| McCrary, W. V. (4 T)         | Anderson              | Mappus, J. H. (1 Ch-Engr)†    | Charleston            |
| McCutchen, W. G. (3 V Ag Ed) | Bishopville           | Mappus, W. A. (4 C)           | Charleston            |
| McDaniel, W. E. (2 Pre-Med)  | Pelzer                | Marchant, P. S. (4 T)†        | Greenville            |
| McDavid, R. B. (1 Ag Engr)†  | Pelzer                | Marett, H. D. (4 V Ag Ed)     | Fair Play             |
| McDonald, J. N. (1 A)†       | Hartsville            | Marsh, W. R. (1 A)†           | Camden                |
| McDonald, W. S. (2 GS)       | Georgetown            | Marshall, A. W. (1 T)†        | Greenville            |
| McDowell, E. B. (3 V Ag Ed)  | Kershaw               | Marshall, R. B. (4 GS)        | Quincy, Mass.         |
| McDowell, N. O. (1 E)†       | Greenville            | Martin, D. O. (1 V Ag Ed)†    | Pendleton             |
| McElveen, J. V. (1 A)†       | Cades                 | Martin, E. E. (3 Hort)        | Gray Court            |
| McElveen, N. R. (2 ME)       | Columbia              | Martin, E. F. (3 CE)          | New York, N. Y.       |
| McFadden, J. B. (4 V Ag Ed)  | Great Falls           | Martin, G. R. (1 V Ag Ed)†    | Chapin                |
| McFaddin, D. (2 A)           | New Zion              | Martin, J. L. (3 ME)          | Spartanburg           |
| McFall, G. R. (3 I Ed)       | Pickens               | Martin, J. M. (1 T)†          | Williamston           |
| McFalls, D. L. (1 Ch-Engr)†  | Orangeburg            | Martin, L. C. (3 Ag Ec)       | Walhalla              |
| McGill, H. T. (1 Ch-Engr)†   | Kingstree             | Martin, R. F. (1 E)†          | Greenville            |
| McGinty, W. M. (4 GS)        | Clemson               | Martin, R. R. (1 E)†          | Belton                |
| McGowan, S. B. (4 CE)        | Aiken                 | Martin, T. M. (2 A)           | Pineville             |
| McInnis, D. B. (1 A)†        | Clio                  | Martin, W. D. (1 A)†          | Piedmont              |
| McIntosh, W. A. (4 C)        | Summerville           | Martinell, R. A. (4 TC)       | Enoree                |
| McKagen, O. H. (3 V Ag Ed)   | Kershaw               | Marvin, J. H. (3 T)           | Lobeco                |
| McKee, L. G. (2 C)           | Chester               | Marvin, O. D. (2 Ar)          | Yemassee              |
| McKenzie, S. A. (4 V Ag Ed)  | Mullins               | Marvin, R. E. (2 A)           | Ritter                |
| McKeown, A. B. (2 Ch-Engr)   | Chester               | Mason, J. L. (2 V Ag Ed)      | Westminster           |
| McKeown, H. (4 ME)           | Chester               | Mason, K. R. (2 ME)           | Kingstree             |
| McKeown, W. H. (3 T)         | Chester               | Mason, W. E. (2 Ed)           | Pacolet Mills         |
| McKesson, E. L. (2 Ag Engr)  | Petersburg, Va.       | Massey, L. M. (3 EE)          | Fort Mill             |
| McKnight, B. G. (3 GS)       | Blythewood            | Matheson, K. (1 T)†           | Columbia              |
| McKnight, J. C. (4 GS)       | Blythewood            | Mathias, F. T. (2 V Ag Ed)    | Lexington             |
| McLaughlin, G. C. (1 T)†     | Florence              | Mathis, W. H. (4 Pre-Med)     | Augusta, Ga.          |
| McLaughlin, J. J. (3 ME)     | Charleston            | Mathews, W. B. (3 Hort)       | Orlando, Fla.         |
| McLaulin, B. L. (2 I Ed)     | Kingstree             | Mauldin, J. A. (2 T)          | Greenville            |
| McLaurin, A. B. (2 V Ag Ed)† | Bethune               | May, D. R. (4 T)              | West Asheville, N. C. |
| McLaurin, C. H. (4 C)        | St. Matthews          | Mayer, A. F. (1 C)†           | Taunton, Mass.        |
| McLaurin, K. F. (4 GS)       | St. Matthews          | Maynard, A. L. R. (1 E)†      | Bethune               |
| McLean, C. S. (2 T)          | Greer                 | Maynard, B. A. (2 AH)         | Florence              |
| McLean, W. K. (3 V Ag Ed)    | Blythewood            | Mayne, W. W. (1 E)†           | Winder, Ga.           |
| McLendon, E. K. (2 ME)       | Columbia              | Mays, H. B. (4 Pre-Med)       | Fair Play             |
| McLeod, G. K. (1 E)†         | Timmons               | Mazinski, R. T. (4 Ch-Engr)   | Jersey City, N. J.    |
| McLeod, J. P. (1 T)†         | Greenville            | Mazo, E. (3 GS)               | Charleston            |
| McLeod, R. K. (2 GS)         | Sumter                | Meares, J. F. (2 A)           | Nichols               |
| McLeod, R. R. (3 GS)         | Hartsville            | Meeks, C. D. (2 ME)           | Anderson              |
| McLure, J. W. (1 CE)         | Union                 | Mellette, E. B. (4 EE)        | Sharon                |
| McMackin, L. F. (2 T)        | Heath Springs         |                               |                       |



| Name and Course             | Address          | Name and Course            | Address              |
|-----------------------------|------------------|----------------------------|----------------------|
| Mellichamp, L. R. (1 E)†    | Anderson         | Neely, H. A. (2 CE)        | Spartanburg          |
| Merriman, H. G. (1 E)†      | Florence         | Neely, R. C. (1 A)†        | Waynesboro, Ga.      |
| Merritt, H. N. (2 V Ag Ed)  | Lake City        | Neil, J. M. (3 T)          | Rock Hill            |
| Merritt, W. E. (2 GS)       | Washington, Ga.  | Nelson, H. N. (2 GS)       | Charleston           |
| Meyers, A. L. (1 GS)        | Florence         | Nelson, H. V. (1 T)†       | Florence             |
| Miley, G. F. (2 V Ag Ed)    | Brunson          | Nelson, P. H. (4 ME)       | Maplewood, N. J.     |
| Milford, L. W. (1 Pre-Med)† | Clemson          | Nesbitt, J. O. (1 E)†      | Pittsburgh, Pa.      |
| Milhous, H. C. (1 E)†       | Andrews          | Neville, M. (3 GS)         | Walhalla             |
| Miller, G. M. (4 EE)        | Greenwood        | New, J. R. (2 E)†          | Greenville           |
| Miller, H. F. (2 V Ag Ed)   | Jefferson        | Newell, J. C. (2 Ag Engr)  | Hemingway            |
| Miller, James H. (2 Ar)     | Columbia         | Newman, R. E. (1 Ag Engr)† | McBee                |
| Miller, John H. (1 T)†      | Greenville       | Newton, C. G. (4 V Ag Ed)  | Myrtle Beach         |
| Miller, R. W. (S)†          | Chester          | Newton, P. (4 I Ed)        | Central              |
| Miller, W. H. (1 E)†        | Waterloo         | Nexsen, S. M. (2 A)        | Kingstree            |
| Mills, C. B. (1 CE)         | Cross Hill       | Nichols, H. D. (1 GS)      | White Pine, Tenn.    |
| Mills, F. C. (4 ME)         | Acworth, Ga.     | Nichols, T. M. (1 A)†      | Newberry             |
| Mills, W. L. (4 V Ag Ed)    | Campobello       | Nicholson, W. S. (4 T)     | Union                |
| Milton, S. J. (2 Ch-Engr)   | Charleston       | Nickles, L. H. (2 ME)      | Donalds              |
| Mims, E. H. (2 GS)          | Columbia         | Nickles, W. B. (3 Agr)     | Hodges               |
| Mims, G. R. (1 E)†          | Florence         | Nilson, H. A. (3 Ar)       | Walterboro           |
| Minnis, H. D. (1 E)†        | Charlotte, N. C. | Nims, J. W. (2 ME)         | Lancaster            |
| Mishoe, W. F. (1 E)†        | Greeleyville     | Norris, R. E. (1 V Ag Ed)† | Conway               |
| Mitchell, J. M. (1 T)†      | Charleston       | Northup, T. Q. (1 A)†      | Springfield          |
| Mixon, J. A. (1 V Ag Ed)†   | Heath Springs    | Norton, E. R. (2 CE)       | Conway               |
| Mixson, R. (1 A)†           | Yemassee         | Norton, J. A. (2 CE)       | Conway               |
| Mobley, F. B. (4 V Ag Ed)   | Lodge            | Nunnery, E. W. (2 V Ag Ed) | Great Falls          |
| Mohap, F. J. (1 E)†         | Bethlehem, Pa.   | Oates, W. J. (4 Ag Engr)   | Chester              |
| Moise, R. B. (1 Ar)†        | Sumter           | O'Bannon, H. L. (1 E)†     | Barnwell             |
| Molina, F. A. (3 Pre-Med)   | Santurce, P. R.  | O'Brien, G. J. (2 Ar)      | Columbia             |
| Momeier, G. H. (1 TC)†      | Charleston       | O'Dell, D. G. (2 C)        | Spartanburg          |
| Monk, F. S. (1 T)           | Columbus, Ga.    | Odum, C. T. (1 C)†         | Elko                 |
| Moody, M. C. (1 E)†         | Dillon           | O'Driscoll, W. C. (4 EE)   | Charleston           |
| Moon, C. C. (4 WD)          | Erlanger, N. C.  | Okurowski, W. B. (3 GS)    | Arlington, N. J.     |
| Moon, H. D. (4 I Ed)        | Westminster      | O'Neal, J. B. (3 GS)       | Fairfax              |
| Moore, B. B. (1 V Ag Ed)†   | Gaffney          | O'Neal, S. C. (2 A)        | Fairfax              |
| Moore, E. L. (4 EE)         | Broxton, Ga.     | Orahood, E. G. (1 E)†      | Sandersville, Ga.    |
| Moore, G. S. (4 Ar)         | Rock Hill        | Oricko, M. A. (3 CE)       | Bethlehem, Pa.       |
| Moore, G. T. (2 Ar)         | Greenville       | Orr, J. L. (4 T)           | Anderson             |
| Moore, M. D. (1 T)†         | Enoree           | Osborne, J. H. (3 CE)      | Hardeeville          |
| Moore, R. N. (2 V Ag Ed)    | Calhoun          | O'Shields, W. R. (3 T)     | Seneca               |
| Moore, W. A. (1 E)†         | LaFrance         | Osteen, R. T. (3 TC)       | Greenville           |
| Moore, W. E. (3 T)          | Commerce, Ga.    | Oswald, H. C. (4 I Ed)     | Lexington            |
| Moorer, D. F. (4 C)         | St. George       | Outz, G. (2 V Ag Ed)       | Fair Play            |
| Moorer, T. R. (4 V Ag Ed)   | Charleston       | Owen, S. E. (3 T)          | Batesburg            |
| Moorer, W. G. (1 Ar)        | Florence         | Owens, W. A. (1 GS)†       | Georgetown           |
| Moorman, R. W. (4 CE)       | Clemson          | Pace, J. E. (2 V Ag Ed)    | Gresham              |
| Morgan, C. C. (2 GS)        | McCormick        | Pacheco, J. M. (1 E)†      | Lama, Col.           |
| Morgan, F. (1 V Ag Ed)†     | Central          | Padgett, W. P. (1 V Ag Ed) | Richburg             |
| Morgan, P. E. (4 GS)        | Gaffney          | Padgett, C. A. (3 Ch-Engr) | Panama, City, Fla.   |
| Morgan, R. D. (1 V Ag Ed)†  | Springfield      | Padgett, W. H. (2 CE)      | Columbia             |
| Morgan, R. E. (2 EE)        | Plum Branch      | Painter, H. L. (2 V Ag Ed) | Chesnee              |
| Morgan, S. C. (3 Agr)       | Central          | Palles, M. D. (2 Pre-Med)  | Florence             |
| Morris, L. D. (3 T)         | Olar             | Palmer, G. E. (2 GS)       | Allendale            |
| Morris, W. L. (1 A)†        | Columbia         | Palmer, N. H. (2 EE)       | Ridgeway             |
| Morrison, C. J. (1 E)†      | Pamplico         | Park, W. C. (3 EE)         | Winston-Salem, N. C. |
| Moss, R. W. (4 GS)          | Charleston       | Parker, J. A. (2 ME)       | Hartsville           |
| Moss, T. C. (1 A)†          | Cameron          | Parker, J. R. (2 A)        | Seneca               |
| Mueller, K. (1 C)†          | Clemson          | Parker, T. M. (2 CE)       | Sumter               |
| Muldrow, H. G. (1 TC)†      | Maysville        | Parks, J. B. (3 EE)        | Fountain Inn         |
| Mullen, C. V. (1 A)†        | Charleston       | Parks, R. H. (1 E)†        | Newberry             |
| Muller, J. C. (4 Ar)        | Charleston       | Parks, W. H. (1 E)†        | Hickory, N. C.       |
| Mulling, F. J. (4 Ch-Engr)  | Savannah, Ga.    | Parler, J. E. (2 E)†       | Beaufort             |
| Mullins, W. A. (2 T)        | Sylacauga, Ala.  | Parnell, S. M. (2 V Ag Ed) | Timmonsville         |
| Mundy, H. A. (1 A)†         | Abbeville        | Parris, J. W. (1 A)†       | Inman                |
| Murph, J. L. (3 CE)         | Seneca           | Parrish, B. C. (3 T)       | Easley               |
| Murrah, T. A. (4 Pre-Med)   | Union            | Parrish, H. G. (1 E)†      | Laurens              |
| Myers, C. O. (4 V Ag Ed)    | Bowman           | Parrish, J. W. (4 T)       | Clover               |
| Myers, J. B. (2 V Ag Ed)    | Orangeburg       | Parrott, D. L. (4 Ar)      | Central              |
| Myers, J. H. (4 CE)         | Seneca           | Pasley, J. H. (3 T)        | Alexander City, Ala. |
| Myers, J. M. (1 Ag Engr)†   | Orangeburg       | Pate, C. P. (1 GS)†        | Charlotte, N. C.     |
| Myers, P. E. (1 Pre-Med)†   | Moncks Corner    | Pate, E. (3 Ag Engr)       | Camden               |
| Myers, R. D. (2 EE)         | Orangeburg       | Pate, J. B. (1 A)†         | Monroe, N. C.        |
| Nalley, A. C. (3 T)         | Easley           | Patterson, C. W. (1 E)†    | Greenville           |
| Nally, E. E. (2 V Ag Ed)    | Easley           | Paulling, B. M. (3 EE)     | St. Matthews         |
| Neel, J. C. (1 E)†          | Newberry         |                            |                      |

| Name and Course             | Address            | Name and Course                  | Address            |
|-----------------------------|--------------------|----------------------------------|--------------------|
| Payne, H. B. (1 Ar)†        | Elberton, Ga.      | Quattlebaum, J. M. (1 Ch-Engr)†  | Columbia           |
| Payne, J. B. (1 A)†         | Piedmont           | Quattlebaum, V. K. (1 Ag Engr)†  | Williston          |
| Payne, J. E. (3 T)          | Piedmont           | Quinn, J. W. (2 T)               | St. Matthews       |
| Payne, W. E. (1 T)†         | Piedmont           | Rabb, J. M. (2 CE)               | Greenville         |
| Pearce, R. R. (3 GS)        | Columbia           | Rabb, R. O. (1 E)†               | Erlanger, N. C.    |
| Pearlstone, I. M. (1 Ar)†   | St. Matthews       | Rabinowitz, M. (4 GS)            | Allendale          |
| Pearman, J. N. (3 I Ed)     | Honea Path         | Rader, J. F. (3 EE)†             | Columbia           |
| Peebles, C. B. (3 V Ag Ed)† | Camden             | Radzivil, E. (1 Ch-Engr)†        | Brooklyn, N. Y.    |
| Peck, J. M. (1 E)†          | Blacksburg         | Ragsdale, E. V. (1 E)†           | Blairs             |
| Pelham, W. E. (3 C)         | Greenville         | Ragsdale, R. E. (1 T)†           | Pelzer             |
| Pence, L. E. (1 V Ag Ed)†   | Tatum              | Ragsdale, W. J. (4 ME)           | Easley             |
| Pender, M. T. (2 Agr)       | Williston          | Rain, F. M. (1 A)                | Florence           |
| Penney, J. T. (2 T)         | Charleston         | Ramey, R. L. (1 A)†              | Mountain Rest      |
| Pericola, R. A. (4 GS)      | Charleston         | Ramsey, M. H. (3 T)              | Anderson           |
| Perna, F. J. (4 CE)         | Riverside, Conn.   | Randall, R. D. (2 CE)            | Rock Hill          |
| Perrone, A. J. (2 EE)       | San Juan, P. R.    | Rankin, G. D. (2 V Ag Ed)        | Saluda             |
| Perry, J. W. (1 C)†         | Calhoun            | Rankin, J. A. (3 V Ag Ed)        | Allsbrook          |
| Perry, R. A. (2 A)          | Gresham            | Rankin, J. J. (3 D)              | Tamassee           |
| Perry, R. E. (2 Pre-Med)    | Savannah, Ga.      | Rankin, J. T. (3 EE)             | Charlotte, N. C.   |
| Perry, T. C. (1 T)†         | Columbus, Ga.      | Ratcliff, N. B. (2 EE)           | Bethune            |
| Peterson, T. E. (3 T)       | Spartanburg        | Rawl, J. L. (1 Ag Engr)          | Lexington          |
| Pettigrew, J. C. (2 Agr)    | Hodges             | Ray, A. B. (2 C)                 | Greenville         |
| Pettit, A. E. (1 E)†        | Greer              | Raynor, B. E. (2 GS)             | West Columbia      |
| Petty, D. M. (2 ME)         | Bethlehem, Pa.     | Rea, G. H. (4 CE)                | Bethlehem, Pa.     |
| Phillips, J. (1 E)†         | Iva                | Reagan, R. P. (4 CE)             | Weaverville, N. C. |
| Phillips, J. V. (3 CE)      | Gaffney            | Reaves, A. L. (3 EE)             | Bishopoville       |
| Phillips, S. F. (2 A)       | Lancaster          | Reaves, M. L. (1 A)†             | Latta              |
| Pickens, N. D. (2 C)        | Seneca             | Redfern, I. C. (3 V Ag Ed)       | Chesterfield       |
| Pickens, R. E. L. (2 T)     | Greenwood          | Redfern, R. B. (3 V Ag Ed)       | Mt. Croghan        |
| Pickens, R. G. (2 ME)       | Westminster, Md.   | Reece, J. I. (2 V Ag Ed)         | Pickens            |
| Pierce, H. W. (1 E)†        | Decatur, Ga.       | Reese, C. A. (1 TC)†             | Rock Hill          |
| Pinson, W. C. (2 I Ed)      | Greenwood          | Reid, G. F. (3 EE)               | Gaffney            |
| Pitchford, C. W. (3 CE)     | Walhalla           | Reid, J. G. (1 Ch-Engr)†         | Fort Motte         |
| Pitts, J. G. (1 T)†         | Clinton            | Reinhardt, R. C. (1 TC)†         | Newton, N. C.      |
| Pitts, J. J. (3 Agr)        | Newberry           | Rembert, T. H. (2 V Ag Ed)       | Bishopville        |
| Pitts, J. W. (2 Pre-Med)    | Saluda             | Renkin, W. A. (1 Pre-Med)†       | Charleston         |
| Pitts, P. L. (1 C)†         | Clinton            | Rentz, L. B. (2 ME)              | Clemson            |
| Planck, C. G. (4 ME)        | Charleston         | Revell, J. P. (1 Ag Engr)†       | Florence           |
| Platt, J. B. (2 C)          | Marion             | Reynolds, C. M. (1 V Ag Ed)      | Scotts, N. C.      |
| Plumb, W. E. (1 A)†         | Bridgeport, Conn.  | Reynolds, E. M. (1 Ag Engr)†     | Lamar              |
| Plummer, J. M. (1 Pre-Med)  | Gadsden, Ala.      | Reynolds, W. B. (1 V Ag Ed)†     | Lamar              |
| Plunkett, E. L. (3 EE)      | Ft. Moultrie       | Rhodes, A. P. (3 EE)             | Walhalla           |
| Poe, W. N. (2 CE)           | Greenville         | Rhodes, T. M. (3 V Ag Ed)        | Estill             |
| Polatty, J. G. (1 E)†       | Balboa, Canal Zone | Rhodes, W. H. (1 ME)             | Darlington         |
| Ponder, P. H. (2 E)†        | Madison, Ga.       | Rhodes, W. T. (3 TC)             | Mayesville         |
| Poole, C. B. (3 ME)         | Gaffney            | Rhyne, A. R. (1 TC)†             | Gastonia, N. C.    |
| Poole, L. H. (2 T)          | Gaffney            | Rhyne, H. S. (2 Pre-Med)         | Gastonia, N. C.    |
| Poore, F. J. (2 TIE)        | Ware Shoals        | Rhyne, W. A. (4 T)               | Gastonia, N. C.    |
| Pope, C. J. (3 T)           | Charleston         | Richard, L. (2 CE)               | Georgetown         |
| Posey, W. W. (4 T)          | Spartanburg        | Richards, J. G. (2 Ar)           | Camden             |
| Poston, R. F. (1 E)†        | Charleston         | Richardson, D. M. (1 Pre-Med)†   | Greenville         |
| Potter, C. L. (3 Ar)        | Tucapau            | Richardson, H. D. (1 E)†         | Orangeburg         |
| Powell, R. F. (1 Ed)†       | Walhalla           | Richardson, J. H. (2 CE)         | Georgetown         |
| Powers, J. T. (3 Ar)        | Summerville        | Richardson, J. L. (2 T)          | Due West           |
| Preacher, J. A. (1 V Ag Ed) | Brunson            | Richardson, J. O. W. (4 V Ag Ed) | Marion             |
| Pregnall, A. H. (4 CE)      | Charleston         | Richardson, T. (4 ME)            | Maplewood, N. J.   |
| Pregnall, H. D. (1 E)†      | Charleston         | Richardson, T. R. (2 A)          | Barnwell           |
| Prentiss, V. O. (2 Agr)     | McClellanville     | Richbourg, J. M. (1 E)†          | Liberty            |
| Price, V. L. (3 GS)         | Walterboro         | Richbourg, W. L. (3 ME)          | Liberty            |
| Prichard, H. D. (3 Ag Engr) | Westminster        | Rickenbaker, M. W. (3 ME)        | Summerton          |
| Prince, J. A. (1 V Ag Ed)†  | Abbeville          | Rickenbaker, T. B. (1 A)†        | Summerton          |
| Proctor, D. (1 A)†          | Dillon             | Riddick, W. R. (2 EE)            | Greenwood          |
| Propst, J. H. (1 TC)†       | Aiken              | Riley, R. A. (1 E)†              | Greenville         |
| Propst, M. C. (4 Ch-Engr)   | Charlotte, N. C.   | Rion, A. H. (3 Pre-Med)          | Columbia           |
| Propst, R. C. (3 Ch-Engr)   | Aiken              | Rivers, P. F. (4 CE)             | Aiken              |
| Propst, W. S. (1 E)†        | Sumter             | Robbins, J. D. (2 T)             | Chester            |
| Pruitt, J. A. (2 E)†        | Anderson           | Roberts, E. D. (1 E)†            | Athens, Ga.        |
| Pruitt, L. G. (2 T)         | Anderson           | Robins, J. E. (2 CE)             | Greenville         |
| Pruitt, R. E. (1 E)†        | Pendleton          | Robinson, C. (3 I Ed)            | Spartanburg        |
| Pruitt, S. H. (4 V Ag Ed)   | Anderson           | Robinson, D. H. (3 CE)           | Chester            |
| Puette, C. A. (2 V Ag Ed)†  | Campobello         | Robinson, H. H. (3 T)            | Union              |
| Pugh, W. E. (4 D)           | Kingstree          | Robinson, J. E. (4 EE)           | Florence           |
| Putman, D. G. (1 T)†        | Woodruff           | Robinson, P. B. (2 Agr)          | St. Matthews       |
| Pyles, L. (1 E)†            | Washington, D. C.  | Robinson, W. A. (2 EE)           | Greer              |
| Quantz, W. P. (4 Ch-Engr)   | Timmonsville       | Rochester, S. (2 A)              | Salem              |



| Name and Course               | Address            | Name and Course                 | Address           |
|-------------------------------|--------------------|---------------------------------|-------------------|
| Rodman, E. J. (3 Ag Engr)     | Rodman             | Shaw, W. G. (1 E)†              | Salisbury, N. C.  |
| Roe, J. T. (1 T)              | Travelers Rest     | Shealy, M. C. (4 Agr)           | Batesburg         |
| Roesel, J. M. (3 EE)†         | Augusta, Ga.       | Shealy, R. H. (2 EE)            | Carlisle          |
| Rogers, D. C. (2 A)           | Pelzer             | Shealy, W. L. (4 Ch-Engr)       | Batesburg         |
| Rogers, D. H. (4 Agr)         | Blenheim           | Shecut, M. A. (1 E)†            | Orangeburg        |
| Rogers, F. E. (3 Ag Engr)     | Darlington         | Sheffield, C. W. (1 Ch-Engr)†   | North Augusta     |
| Rogers, G. M. (2 Pre-Med)     | Seneca             | Shelley, R. C. (4 Agr)          | Marion            |
| Rogers, J. D. (1 A)†          | Dillon             | Shelton, T. B. (2 EE)           | Walhalla          |
| Rogers, J. M. (2 Ag Engr)     | Clio               | Sherard, J. H. (2 Pre-Med)      | Abbeville         |
| Rogers, J. R. (4 ME)          | Latta              | Sheriff, A. C. (1 Ar)†          | Orangeburg        |
| Rogers, J. S. (2 ME)          | Conway             | Sherman, J. T. (2 V Ag Ed)      | Easley            |
| Rogers, L. D. (1 I Ed)†       | Spartanburg        | Shillinglaw, J. R. (1 Ag Engr)† | Sharon            |
| Rogers, R. S. (1 T)†          | McColl             | Shipman, O. H. (4 AH)           | Greenville        |
| Rogers, S. S. (2 A)           | Blenheim           | Shirley, G. E. (3 CE)           | Anderson          |
| Roies, A. W. (2 EE & ME)      | Williamson, W. Va. | Shirley, James A. (3 I Ed)      | Westminster       |
| Roof, R. C. (2 CE)            | Columbia           | Shirley, Joseph A. (4 TC)       | Bath              |
| Roper, E. R. (4 TC)           | Spartanburg        | Shirley, L. (3 Ag Engr)         | Anderson          |
| Roper, F. F. (3 V Ag Ed)      | Pickens            | Shirley, W. C. (1 GS)†          | Bainbridge, Ga.   |
| Roper, R. E. (1 V Ag Ed)†     | Easley             | Shirley, W. K. (2 T)            | Belton            |
| Rosa, L. C. (1 Ar)†           | San Juan, P. R.    | Shuford, P. H. (2 I Ed)         | Lincolnton, N. C. |
| Rosenthal, J. (1 E)†          | Savannah, Ga.      | Shuler, G. (3 Agr)              | St. Matthews      |
| Rosenzweig, J. H. (1 A)†      | Brooklyn, N. Y.    | Shuman, C. (1 E)†               | Furman            |
| Ross, D. J. (3 T)             | West Columbia      | Shurtleff, S. J. (2 TIE)        | Fairhaven, Mass.  |
| Ross, E. A. (3 T)             | Savannah, Ga.      | Siddall, T. H. (1 C)†           | Sumter            |
| Ross, G. (3 Ar)               | Greenville         | Sills, K. G. (1 E)†             | Maplewood, N. J.  |
| Ross, H. J. (4 V Ag Ed)       | Summerton          | Simmons, C. L. (3 Ch-Engr)      | Spartanburg       |
| Rothell, C. (1 A)†            | Saluda             | Simmons, M. F. (3 TC)           | Greer             |
| Rozier, W. R. (2 V Ag Ed)     | Cassatt            | Simon, H. M. (1 E)†             | Williston         |
| Rucker, R. J. (2 Ag Engr)     | St. Matthews       | Simonds, J. D. (1 E)†           | Orlando, Fla.     |
| Ruff, D. W. (1 A)†            | Ridgeway           | Simpson, A. T. (4 V Ag Ed)      | Blaney            |
| Ruff, John D. (1 Pre-Med)†    | Ridgeway           | Simpson, D. N. (3 V Ag Ed)      | Iva               |
| Ruff, Julian D. (1 V Ag Ed)†  | Newberry           | Simpson, H. V. (3 TC)           | Anderson          |
| Rumph, W. P. (2 I Ed)         | Charleston         | Simpson, J. F. (2 A)            | Chester           |
| Rumsey, A. H. (2 Ch-Engr)     | Greenville         | Simpson, J. H. (2 EE)           | Whitmire          |
| Rushing, B. T. (4 T)          | Estill             | Simpson, J. L. (3 Agr)          | Iva               |
| Rutland, L. E. (2 Ag Ec)      | Batesburg          | Simpson, R. A. (1 Ag Engr)      | Chester           |
| Rutledge, F. A. (2 CE)        | Charleston         | Sims, J. J. (3 Ch-Engr)         | Easley            |
| Rutledge, T. B. (3 CE)        | Charleston         | Sims, R. Y. (2 EE)              | Memphis, Tenn.    |
| Safy, G. J. (2 CE)            | Greenville         | Sinclair, H. M. (1 Ch-Engr)†    | Boston, Mass.     |
| Salley, W. B. (3 I Ed)        | Orangeburg         | Singletary, J. B. (3 Agr)       | Coward            |
| Salter, J. A. (2 E)†          | Atlanta, Ga.       | Singletary, S. J. (1 E)†        | Lake City         |
| Sams, B. B. (2 ME)            | Mt. Pleasant       | Singleton, J. K. (3 GS)†        | Westminster       |
| Sanders, A. W. (4 Ch-Engr)    | Savannah, Ga.      | Sistare, F. W. (1 CE)           | Lancaster         |
| Sanders, J. L. (1 E)†         | Rock Hill          | Skardon, J. W. (2 GS)           | Walterboro        |
| Sanders, R. H. (1 E)†         | Washington, D. C.  | Small, M. P. (1 E)†             | Lancaster         |
| Sanders, W. F. (3 WD)         | Camden             | Smart, W. W. G. (2 C)           | Shelby, N. C.     |
| Sandifer, L. M. (3 GS)†       | Denmark            | Smith, C. E. (2 Pre-Med)        | Ridgeland         |
| Sarratt, F. H. (1 C)†         | Gaffney            | Smith, C. N. (1 Ch-Engr)†       | Williston         |
| Scarboro, M. D. (1 E)†        | Buffalo            | Smith, C. W. (1 E)†             | E. Gadsden, Ala.  |
| Scarborough, R. L. (4 Ag Ec)† | Sumter             | Smith, D. T. (4 Ch-Engr)        | Abbeville         |
| Scarborough, R. W. (4 ME)     | Buffalo            | Smith, D. W. (3 EE)             | Williston         |
| Schmidt, J. E. (4 GS)         | Clemson            | Smith, E. E. (1 V Ag Ed)†       | Bishopville       |
| Schroder, F. E. (2 CE)        | Cranford, N. J.    | Smith, E. H. (3 EE)             | Johnston          |
| Scott, R. A. (2 ME)           | Biddeford, Me.     | Smith, E. N. (2 C)              | Greenville        |
| Scott, T. A. (1 V Ag Ed)      | Honea Path         | Smith, G. L. (3 T)              | Springfield       |
| Seabrook, P. D. (3 Hort)      | Johns Island       | Smith, H. D. (3 T)              | Greenville        |
| Sears, W. J. (1 E)†           | Lynn, Mass.        | Smith, H. L. (1 V Ag Ed)†       | Trenton           |
| Segars, A. L. (3 Hort)        | Hartsville         | Smith, H. W. (2 A)              | Pageland          |
| Segars, R. B. (2 A)           | Oswego             | Smith, J. (1 T)†                | Spartanburg       |
| Seigler, C. W. (1 T)†         | Anderson           | Smith, J. F. (1 E)†             | Laurens           |
| Seigler, J. P. (2 ME)         | Starr              | Smith, M. T. (4 ME)             | Walhalla          |
| Sellers, A. R. (3 I Ed)       | Florence           | Smith, P. F. (3 Ch-Engr)        | Summerville       |
| Sellers, C. H. (1 A)†         | Columbia           | Smith, R. A. (3 V Ag Ed)        | Fair Play         |
| Sells, C. K. (4 T)            | Charleston         | Smith, R. B. (2 CE)             | Charleston        |
| Senn, J. D. (1 Ag Engr)†      | Newberry           | Smith, R. D. (3 V Ag Ed)        | Bowman            |
| Senn, T. A. (2 EE)            | Laurens            | Smith, R. L. (1 E)†             | Glenn Springs     |
| Settle, H. H. (3 Hort)        | Inman              | Smith, T. L. (4 GS)             | Charleston        |
| Seyle, F. W. (2 CE)           | Savannah, Ga.      | Smith, W. E. (3 Ed)             | Salem             |
| Shapiro, R. N. (1 E)†         | Union              | Smith, W. H. (3 Ch Engr)        | New Holland, Ga.  |
| Sharp, F. A. (1 Ag Engr)†     | Clemson            | Smith, W. T. (3 V Ag Ed)        | Winnsboro         |
| Sharp, J. D. (3 Agr)          | Anderson           | Smook, R. A. (3 ME)             | Branchville       |
| Sharpe, R. G. (4 T)           | Abbeville          | Snead, A. J. (3 CE)             | Greenwood         |
| Sharpe, W. B. (4 C)           | Orangeburg         | Snell, F. J. (1 V Ag Ed)†       | Ellorree          |
| Sharpe, W. F. (1 E)†          | Gaston             | Snipes, G. L. (4 V Ag Ed)       | Seneca            |

| Name and Course                 | Address           | Name and Course                | Address              |
|---------------------------------|-------------------|--------------------------------|----------------------|
| Snipes, J. W. (1 Pre-Med)†      | Pelzer            | Suthern, C. A. (1 C)†          | Taunton, Mass.       |
| Snoddy, J. D. (1 T)†            | Wellford          | Sutker, A. (1 V Ag Ed)†        | McColl               |
| Snyderman, F. L. (1 T)          | Philadelphia, Pa. | Sutton, A. D. (4 CE)           | Fort Mill            |
| Somerville, A. W. (2 ME)        | McConnellsville   | Sutton, C. B. (4 ME)           | Columbia             |
| Sosa, D. (1 E)†                 | San Juan, P. R.   | Swalls, J. P. (1 Pre-Med)†     | Andrews              |
| Sosa, R. (1 Ar)                 | Santurce, P. R.   | Swearingen, J. C. (3 V Ag Ed)  | Trenton              |
| Sosnowski, J. R. (2 C)          | Johns Island      | Sweatte, J. E. (1 E)†          | Sumter               |
| Sottile, S. V. (3 CE)           | Charleston        | Switzer, J. E. (4 V Ag Ed)     | Roebuck              |
| Sottile, V. N. (2 EE)           | Charleston        | Tallevast, C. J. (1 E)†        | Hamlet, N. C.        |
| Southerlin, J. R. (2 CE)        | Greenville        | Tallevast, J. N. (1 Pre-Med)†  | Florence             |
| Sparks, L. M. (3 Ent)           | Gaffney           | Tarleton, H. J. (2 T)          | South Orange, N. J.  |
| Spearman, F. A. (2 C)           | Williamston       | Tate, D. H. (2 ME)             | Rock Hill            |
| Spencer, C. A. (1 E)†           | Greenville        | Tate, J. H. (1 E)†             | Spartanburg          |
| Spire, C. E. (4 WD)             | Hartsville        | Taylor, G. (1 E)†              | Brunswick, Ga.       |
| Spivey, E. P. (2 V Ag Ed)       | Loris             | Taylor, J. O. (3 V Ag Ed)      | Mt. Croghan          |
| Sprouse, C. A. (1 T)†           | Abbeville         | Taylor, R. H. (2 EE)           | Aspinwall, Pa.       |
| Sprouse, M. N. (2 EE)           | Anderson          | Taylor, W. L. (2 CE)           | Columbia             |
| Stafford, G. H. (2 GS)          | Latta             | Teale, W. H. (1 E)†            | Hartsville           |
| Stallworth, J. M. (4 Pre-Med)   | St. Matthews      | Templeton, W. D. (1 T)         | Lancaster            |
| Stanfield, L. B. (1 GS)†        | Cordova           | Terry, J. R. (2 CE)            | Fountain Inn         |
| Stanford, M. C. (3 GS)          | Atlanta, Ga.      | Terwilliger, W. D. (1 TC)†     | Aiken                |
| Stanley, T. E. (1 T)†           | Marion            | Thackston, J. E. (3 ME)        | Greenville           |
| Stansill, J. T. (1 V Ag Ed)     | Eastover          | Thames, F. H. (2 Ch-Engr)      | Charleston           |
| Stanton, G. L. (1 E)†           | Florence          | Thames, P. B. (1 E)†           | Florence             |
| Starnes, J. O. (2 A)            | Lancaster         | Theodore, J. (4 I Ed)          | Greenville           |
| Steadly, H. D. (1 EE)           | Bamberg           | Thode, F. W. (4 Hort)          | Walhalla             |
| Steele, R. N. (2 T)             | Fairhaven, Mass.  | Thomas, A. E. (2 T)            | Georgetown           |
| Stenstrom, E. F. (2 Ag Engr)†   | Wauchula, Fla.    | Thomas, G. G. (2 ME)           | Rock Hill            |
|                                 |                   | Thomas, J. M. (3 Agr)          | Jefferson            |
| Stephens, J. R. (1 E)†          | Canton, N. C.     | Thomas, J. R. (1 Ar)†          | Rock Hill            |
| Stephens, W. A. (1 E)†          | Anderson          | Thomas, R. E. (1 A)†           | Fairfax              |
| Sterghos, J. D. (3 I Ed)        | Greenwood         | Thomas, R. L. (3 T)            | Spartanburg          |
| Stevenson, J. H. (2 A)          | Marion            | Thomason, J. E. (4 V Ag Ed)    | Simpsonville         |
| Stevenson, M. L. (1 A)†         | Winnboro          | Thompson, B. G. (3 ME)         | Lodge                |
| Stevenson, T. F. (2 GS)         | Columbia          | Thompson, C. W. (4 V Ag Ed)    | Reevesville          |
| Stewart, E. D. (2 GS)           | Greenville        | Thompson, G. C. (1 E)†         | E. Falls Church, Va. |
| Stewart, E. R. (4 V Ag Ed)      | Fountain Inn      | Thompson, G. E. (2 Ag Engr)    | Chesnee              |
| Stewart, T. H. (3 V Ag Ed)      | Six Mile          | Thompson, H. M. (1 E)†         | Williston            |
| Stewart, W. M. (1 E)†           | Woodruff          | Thompson, J. L. (2 TC)         | North Augusta        |
| Still, A. A. (1 V Ag Ed)†       | Blackville        | Thompson, J. S. (1 V Ag Ed)    | Bucksville           |
| Stockman, R. M. (1 T)†          | Greenwood         | Thompson, J. W. (2 V Ag Ed)    | Bowman               |
| Stoddard, R. L. (3 A)†          | Owings            | Thornburg, R. W. (3 ME)        | Bessemer City, N. C. |
| Stokes, C. A. (2 EE)            | Greer             | Thornley, W. H. (2 Ed)         | Moncks Corner        |
| Stokes, F. H. (2 V Ag Ed)       | Darlington        | Thornton, C. C. (4 C)          | Union                |
| Stone, A. M. (1 E)†             | Greenville        | Tiller, M. B. (1 E)†           | Mayesville           |
| Stone, H. G. (1 GS)†            | Florence          | Tillis, M. J. (1 A)†           | Bartow, Fla.         |
| Stone, J. C. (1 Ch-Engr)†       | Greenville        | Timmerman, R. P. (3 TC)        | Graniteville         |
| Stone, L. T. (1 V Ag Ed)        | Marion            | Timmerman, T. L. (1 T)†        | Laurens              |
| Stoudemire, G. A. (4 V Ag Ed)   | Little Mountain   | Timmons, C. T. (2 T)           | Hartwell, Ga.        |
| Stoudenmire, D. E. (1 V Ag Ed)† | Lone Star         | Tindall, F. L. (1 E)†          | Inman                |
| Stover, E. L. (1 C)             | Winnboro          | Tingle, A. M. (2 EE)           | Asheville, N. C.     |
| Strauss, E. M. (2 EE)           | Newberry          | Tingle, W. B. (2 EE)           | Ora                  |
| Strawhorn, H. (2 EE)            | Bradley           | Tinsley, S. W. (1 A)†          | Spartanburg          |
| Stribling, J. F. (3 Ag Engr)    | Westminster       | Tirado, M. A. (1 A)†           | Rio Piedros, P. R.   |
| Stribling, S. C. (1 E)†         | Gaffney           | Tisdale, C. F. (2 Ag Ec)       | Bryson City, N. C.   |
| Stribling, S. P. (4 V Ag Ed)    | Westminster       | Todd, A. L. (2 WD)             | Anderson             |
| Stribling, T. E. (2 T)          | Habersham, Ga.    | Todd, C. E. (2 GS)             | Fairfax              |
| Strickland, O. K. (4 V Ag Ed)   | Nichols           | Todd, R. (4 V Ag Ed)           | Loris                |
| Stricklin, T. S. (2 ME)         | Richburg          | Tomlinson, S. O. (2 A)         | Lynchburg            |
| Strom, L. F. (1 V Ag Ed)†       | Ward              | Toms, R. B. (1 E)†             | Iva                  |
| Strom, L. S. (1 T)†             | McCormick         | Toole, G. M. (1 Ag Engr)†      | Williston            |
| Stroud, M. C. (1 A)†            | Heath Springs     | Toomey, W. G. (1 V Ag Ed)†     | Mt. Holly, N. C.     |
| Stroud, W. C. (3 V Ag Ed)       | Richburg          | Trammell, R. C. (1 Ar)†        | Greenville           |
| Stuart, C. K. (1 A)†            | Coronaca          | Trammell, W. V. (3 Ch-Engr)    | Anderson             |
| Stubblefield, H. (4 Ar)         | Greenwood         | Traylor, M. H. (1 A)†          | Ridgeway             |
| Stuckey, W. H. (3 Agr)          | Bishopville       | Trexler, B. D. (3 Ed)          | Greenville           |
| Sturgis, H. L. (2 T)            | Rock Hill         | Trimmier, J. D. (2 T)          | Inman                |
| Sturkey, H. A. (1 Ch-Engr)†     | McCormick         | Triplett, C. H. (4 Ag Engr)    | Chester              |
| Sullivan, J. W. (3 T)           | Lodge             | Trowbridge, F. R. (1 Ch-Engr)† | Aiken                |
| Sullivan, O. E. (4 T)           | Gaffney           | Truett, E. C. (3 V Ag Ed)      | Timmonsville         |
| Sullivan, R. P. (2 T)           | Gaffney           | Truluck, J. W. (4 V Ag Ed)     | Coward               |
| Sumner, O. R. (1 C)†            | Newberry          | Tsiropoulos, T. A. (1 E)†      | Charleston           |
| Summers, C. B. (4 GS)           | Columbia          |                                |                      |
| Sumner, C. D. (1 E)†            | Bat Cave, N. C.   |                                |                      |



| Name and Course             | Address            | Name and Course                | Address           |
|-----------------------------|--------------------|--------------------------------|-------------------|
| Tucker, W. E. (2 Ed)        | Greenville         | Webster, S. R. (3 ME)          | Mullins           |
| Turnblin, G. A. (1 E)†      | Clinton            | Weingartner, R. W. (2 E)†      | Philadelphia, Pa. |
| Tupper, J. (1 Ar)†          | Summerville        | Weinheimer, R. J. (2 EE & ME)  | Erie, Pa.         |
| Turnage, R. E. (1 E)†       | Hartsville         | Welch, F. R. (2 EE)            | Charleston        |
| Turner, C. A. (3 T)         | Fort Mill          | Welch, J. J. (1 Pre-Med)†      | Turbeville        |
| Turner, G. M. (3 GS)        | Greenville         | Wells, F. E. (4 V Ag Ed)       | Greenwood         |
| Turner, J. W. (1 E)†        | Minturn            | Wentzel, D. B. (3 EE)          | Clemson           |
| Turner, N. L. (4 Hort)      | White Hall         | West, E. C. (4 V Ag Ed)        | Conway            |
| Turner, S. T. (1 E)†        | Taylors            | West, F. T. (2 V Ag Ed)        | Marion            |
| Turner, W. C. (2 ME)        | Piedmont           | West, H. D. (2 A)              | Bowman            |
| Turner, W. W. (1 V Ag Ed)†  | Landrum            | West, I. W. (2 GS)             | Richmond, Va.     |
| Umphlett, C. W. (1 E)†      | Witherbee          | West, L. M. (2 V Ag Ed)        | Columbia          |
| Vail, H. B. (4 Ag Ec)†      | Milton, N. Y.      | West, O. S. (1 A)†             | Holly Hill        |
| Van Ausdal, R. K. (1 E)†    | Dayton, Ohio       | West, T. P. (4 T)              | Greenville        |
| Vamsant, V. W. (4 V Ag Ed)  | Batesburg          | Westervelt, J. I. (1 E)†       | Greenville        |
| Van Wyck, W. O. (4 GS)      | Covina, Calif.     | Whall, R. F. (2 Ch-Engr)       | San Juan, P. R.   |
| Varn, A. H. (2 EE)          | Charleston         | Wham, G. S. (3 TC)             | Mountville        |
| Vassey, H. M. (4 V Ag Ed)   | Chesnee            | Wheeler, G. A. (3 AH)          | Spartanburg       |
| Vassey, W. E. (1 V Ag Ed)†  | Chesnee            | Wheeler, G. C. (3 D)           | Saluda            |
| Vereen, L. C. (3 CE)        | Latta              | Wheeler, R. F. (3 V Ag Ed)     | Batesburg         |
| Vernon, F. L. (S)†          | Wellford           | Whisenant, J. E. (3 EE)        | Spartanburg       |
| Vernon, R. H. (1 V Ag Ed)   | Travelers Rest     | Whisenant, C. L. (4 TC)        | Charlotte, N. C.  |
| Vicars, J. H. (1 E)†        | Waynesboro, Va.    | White, E. T. (2 EE)            | Belton            |
| Vickery, H. M. (1 Ch-Engr)† | Hartwell, Ga.      | White, J. R. (2 A)             | Sumter            |
| Vickery, J. B. (3 V Ag Ed)  | Central            | White, R. J. (2 EE)            | Winnsboro         |
| Vickery, L. C. (1 T)†       | Greenville         | White, T. P. (2 Ch-Engr)       | Gough             |
| Vincent, C. A. (4 Ag Ec)    | Lynchburg          | White, W. C. (2 CE)            | Rock Hill         |
| Von Hollen, C. H. (2 EE)    | Greenville         | Whitney, W. E. (1 GS)†         | Union             |
| Von Weller, G. S. (3 GS)    | Albany, Ga.        | Whitten, M. W. (1 V Ag Ed)     | Salem             |
| Waddey, C. M. (1 GS)†       | Augusta, Ga.       | Wiggins, J. R. (1 V Ag Ed)†    | Timmonsville      |
| Wade, W. B. (4 GS)          | Clinton            | Wiggins, R. C. (2 A)           | Hopkins           |
| Waits, J. K. (1 C)†         | Goldville          | Wigington, L. M. (1 E)†        | Anderson          |
| Wakefield, D. C. (S)        | Anderson           | Wigington, W. H. (3 EE)        | Anderson          |
| Walden, A. R. (2 A)         | Landrum            | Wilkerson, C. F. (1 Ed)†       | Hickory Grove     |
| Waldmann, B. W. (1 E)†      | Charleston         | Willard, J. H. (2 EE)          | Buffalo           |
| Walker, C. M. (1 V Ag Ed)†  | Norway             | Williams, A. G. (1 A)†         | Winnsboro         |
| Walker, D. L. (3 ME)†       | Columbia           | Williams, A. V. (4 Pre-Med)    | Charleston        |
| Walker, M. E. (3 Agr)       | Rock Hill          | Williams, G. E. (2 T)          | Greenville        |
| Walker, R. H. (3 EE)        | Appleton           | Williams, G. H. (1 Pre-Med)†   | Charleston        |
| Wallace, F. X. (1 Ch-Engr)† | Schenectady, N. Y. | Williams, G. L. (2 V Ag Ed)    | Neeses            |
| Wallace, J. R. (2 CE)       | Central            | Williams, G. P. (2 EE)         | Kingstree         |
| Wallace, J. W. (3 V Ag Ed)  | Hamer              | Williams, J. C. (4 Agr)        | Norway            |
| Walters, D. D. (1 A)†       | St. George         | Williams, J. P. (1 Ar)†        | Callison          |
| Watterson, W. L. (1 E)†     | McBee              | Williams, L. A. (2 A)          | Olar              |
| Wannamaker, H. L. (1 E)†    | Charleston         | Williams, S. B. (4 V Ag Ed)    | Greer             |
| Wannamaker, R. C. (4 Agr)   | St. Matthews       | Williams, W. B. (1 E)†         | Gaffney           |
| Ward, G. H. (1 E)†          | Effingham          | Williams, W. C. (2 GS)         | Swansea           |
| Ward, H. E. (4 Ag Engr)     | Darlington         | Williamson, J. F. (1 Pre-Med)† | Columbia          |
| Waring, H. (2 EE)           | Summerville        | Williamson, S. A. (3 GS)       | Aiken             |
| Warner, C. T. (4 ME)        | Greenwood          | Willimon, E. L. (2 Ar)         | Florence          |
| Warner, V. L. (1 A)†        | Greenwood          | Willis, J. W. (3 ME)           | Lynchburg         |
| Warren, J. H. (3 Pre-Med)   | Charleston         | Willis, L. M. (1 E)†           | Columbia          |
| Washington, W. M. (2 EE)    | Honea Path         | Willis, M. D. (4 ME)           | Spartanburg       |
| Waters, G. H. (4 T)         | Johnston           | Wilson, B. R. (2 A)            | Darlington        |
| Waters, R. M. (1 A)†        | Inman              | Wilson, C. L. (2 V Ag Ed)      | Fort Mill         |
| Watkins, M. D. (2 A)        | Westminster        | Wilson, C. P. (2 Ed)           | Ridgeland         |
| Watkins, M. H. (2 ME)       | Pendleton          | Wilson, E. F. (2 I Ed)         | Abbeville         |
| Watson, J. B. (2 A)         | Anderson           | Wilson, H. B. (2 T)            | Abbeville         |
| Watson, J. D. (1 V Ag Ed)†  | Blaney             | Wilson, H. S. (3 EE)           | Calhoun Falls     |
| Watson, J. F. (3 Ch-Engr)   | Greenwood          | Wilson, J. M. (2 Ar)           | Charleston        |
| Watson, M. B. (2 CE)        | Greenville         | Wilson, R. B. (2 EE)           | Piedmont          |
| Watson, M. P. (1 Ed)†       | Conway             | Wilson, S. J. (1 E)†           | Allendale         |
| Watson, R. G. (1 E)†        | Spartanburg        | Wilson, T. H. (1 Ch-Engr)†     | Columbia          |
| Watson, R. H. (1 T)         | Enoree             | Wilson, T. V. (2 Ag Engr)      | Piedmont          |
| Way, H. G. (2 A)            | Hemingway          | Wilson, W. C. (2 AH)           | Atlanta, Ga.      |
| Wearn, W. C. (3 EE)         | Newberry           | Wilson, W. R. (1 E)†           | Camden            |
| Weaver, T. H. (1 E)†        | Florence           | Wily, R. R. (3 ME)             | Bethlehem, Pa.    |
| Webb, B. L. (4 CE)          | Beaufort           | Windell, J. K. (1 Ag Engr)†    | Rock Hill         |
| Webb, G. R. (3 CE)          | Saluda             | Winfield, J. A. (4 ME)         | Stony Creek, Va.  |
| Webb, H. N. (4 Ar)          | Anderson           | Winstead, F. S. (1 E)†         | Mullins           |
| Webb, Henry W. (1 A)†       | Williston          | Wise, G. L. (1 E)†             | Newberry          |
| Webb, Hugh W. (3 CE)        | Saluda             | Wise, W. R. (4 EE)             | Newberry          |
| Webb, S. (1 E)†             | Anderson           | Witherspoon, H. L. (1 E)†      | Sumter            |
| Webster, F. S. (2 Ch-Engr)  | Greenville         | Wofford, W. G. (2 A)           | Hartsville        |

| Name and Course             | Address             | Name and Course          | Address        |
|-----------------------------|---------------------|--------------------------|----------------|
| Wood, C. R. (1 T)†          | Greenville          | Wyndham, F. E. (2 AH)    | Moncks Corner  |
| Wood, M. R. (1 Ed)†         | Greenville          | Yarborough, B. H. (4 C)  | Winnsboro      |
| Wood, W. D. (3 Ent)         | Bennettsville       | Yarid, S. K. (3 C)       | Seneca         |
| Woodhurst, R. S. (2 Ar)     | Abbeville           | Yates, W. J. (1 Ar)†     | Sumter         |
| Woodruff, B. E. (2 Ch-Engr) | Cedartown, Ga.      | Yeargin, B. F. (2 T)     | Ware Shoals    |
| Woods, T. D. (3 T)          | Fort Mill           | Yecko, A. H. (1 Ar)†     | McDonald, Pa.  |
| Woodward, J. E. (3 EE)      | Greenville          | Yelton, L. M. (3 Ag Ec)  | Eastover       |
| Woodward, L. J. (4 EE)      | Anderson            | Yoder, C. E. (1 E)†      | Abbeville      |
| Woody, C. B. (1 A)†         | Charleston          | Yonce, C. Z. (2 CE)      | Clemson        |
| Workman, J. N. (1 Pre-Med)† | McCormick           | Yonce, J. P. (1 GS)      | Edgefield      |
| Workman, W. D. (2 GS)       | Clinton             | York, J. E. (S)†         | Charleston     |
| Wray, C. V. (4 T)           | Clemson             | Young, Edward L. (3 D)   | Timonsville    |
| Wrenn, G. L. (1 E)†         | Greenville          | Young, Ernest L. (4 ME)  | Fairfax        |
| Wright, C. E. (1 A)†        | Decatur, Ga.        | Young, F. G. (4 Hort)    | Hamilton, Ala. |
| Wright, C. K. (2 GS)        | Columbia            | Young, J. G. (2 GS)      | Florence       |
| Wright, C. R. (3 Pre-Med)   | Gastonia, N. C.     | Young, J. W. (1 E)†      | Bethlehem, Pa. |
| Wright, E. E. (2 EE)        | Sumter              | Young, T. V. (1 Ar)†     | Rembert        |
| Wright, G. P. (1 Ch-Engr)†  | Newberry            | Youngblood, C. S. (1 A)† | Elko           |
| Wright, J. G. (2 Pre-Med)   | Anderson            | Zeigler, A. E. (2 T)     | Columbia       |
| Wright, V. J. (1 E)†        | Cedartown, Ga.      | Zeigler, C. M. (4 T)     | St. Matthews   |
| Wright, M. E. (4 GS)        | Fredericksburg, Va. | Zeigler, J. S. (3 ME)    | Florence       |
| Wright, T. C. (2 V Ag Ed)   | Ward                | Zerbst, H. C. (3 Hort)   | Charleston     |

## NUMBER OF STUDENTS MAJORING IN EACH CURRICULUM

First Semester 1939-1940

| Class     | Agriculture | Agricultural Engineering | Chemistry | Architecture | Engineering (Unclassified) | Chemistry—Engineering | Civil Engineering | Electrical Engineering | Mechanical Engineering | General Science | Pre-Medical | Textile Engineering | Textile Chemistry and Dyeing | Weaving and Designing | Vocational Agricultural Education | Education | Industrial Education | Textile Industrial Education | Special | Enrollment by Classes |
|-----------|-------------|--------------------------|-----------|--------------|----------------------------|-----------------------|-------------------|------------------------|------------------------|-----------------|-------------|---------------------|------------------------------|-----------------------|-----------------------------------|-----------|----------------------|------------------------------|---------|-----------------------|
| Senior    | 42          | 8                        | 12        | 12           |                            | 13                    | 22                | 22                     | 28                     | 35              | 7           | 49                  | 9                            | 3                     | 60                                |           | 15                   | 3                            |         | 340                   |
| Junior    | 69          | 17                       | 11        | 16           |                            | 18                    | 27                | 38                     | 36                     | 36              | 9           | 73                  | 21                           | 3                     | 53                                | 5         | 12                   |                              |         | 444                   |
| Sophomore | 104         | 17                       | 24        | 22           |                            | 17                    | 39                | 84                     | 56                     | 41              | 33          | 79                  | 14                           | 5                     | 80                                | 8         | 16                   | 3                            |         | 642                   |
| Freshman  | 121         | 28                       | 21        | 29           | 251                        | 33                    |                   |                        |                        | 42              | 53          | 76                  | 17                           |                       | 84                                | 13        | 8                    |                              |         | 776                   |
| Special   |             |                          |           |              |                            |                       |                   |                        |                        |                 |             |                     |                              |                       |                                   |           |                      |                              | 25      | 25                    |
| Totals    | 336         | 70                       | 68        | 79           | 251                        | 81                    | 88                | 144                    | 120                    | 154             | 102         | 277                 | 61                           | 11                    | 277                               | 26        | 51                   | 6                            | 25      | 2227                  |



## ENROLLMENT BY COUNTIES AND STATES

## FIRST SEMESTER 1939-1940

| <i>County</i>              | <i>Total</i> | <i>State or Country</i>    | <i>Total</i> |
|----------------------------|--------------|----------------------------|--------------|
| Abbeville -----            | 35           | Alabama -----              | 5            |
| Aiken -----                | 32           | Austria -----              | 1            |
| Allendale -----            | 20           | California -----           | 1            |
| Anderson -----             | 139          | Canal Zone -----           | 1            |
| Bamberg -----              | 9            | Colorado -----             | 1            |
| Barnwell -----             | 24           | Connecticut -----          | 5            |
| Beaufort -----             | 14           | Cuba -----                 | 1            |
| Berkeley -----             | 10           | Delaware -----             | 2            |
| Calhoun -----              | 24           | District of Columbia ----- | 8            |
| Charleston -----           | 104          | Florida -----              | 17           |
| Cherokee -----             | 30           | Georgia -----              | 84           |
| Chester -----              | 33           | Illinois -----             | 2            |
| Chesterfield -----         | 26           | Kentucky -----             | 1            |
| Clarendon -----            | 24           | Louisiana -----            | 1            |
| Colleton -----             | 16           | Maine -----                | 1            |
| Darlington -----           | 41           | Maryland -----             | 3            |
| Dillon -----               | 22           | Massachusetts -----        | 10           |
| Dorchester -----           | 18           | Michigan -----             | 2            |
| Edgefield -----            | 19           | Minnesota -----            | 1            |
| Fairfield -----            | 27           | Mississippi -----          | 2            |
| Florence -----             | 93           | New Jersey -----           | 18           |
| Georgetown -----           | 15           | New York -----             | 19           |
| Greenville -----           | 159          | North Carolina -----       | 95           |
| Greenwood -----            | 52           | Ohio -----                 | 1            |
| Hampton -----              | 16           | Pennsylvania -----         | 30           |
| Horry -----                | 36           | Puerto Rico -----          | 8            |
| Jasper -----               | 8            | South Carolina -----       | 1883         |
| Kershaw -----              | 25           | Tennessee -----            | 7            |
| Lancaster -----            | 25           | Texas -----                | 2            |
| Laurens -----              | 42           | Virginia -----             | 11           |
| Lee -----                  | 21           | Washington -----           | 1            |
| Lexington -----            | 32           | West Virginia -----        | 2            |
| Marion -----               | 27           | Wisconsin -----            | 1            |
| Marlboro -----             | 20           |                            |              |
| McCormick -----            | 14           | Grand Total -----          | 2227         |
| Newberry -----             | 38           |                            |              |
| Oconee -----               | 84           |                            |              |
| Orangeburg -----           | 64           |                            |              |
| Pickens -----              | 68           |                            |              |
| Richland -----             | 84           |                            |              |
| Saluda -----               | 22           |                            |              |
| Spartanburg -----          | 99           |                            |              |
| Sumter -----               | 45           |                            |              |
| Union -----                | 31           |                            |              |
| Williamsburg -----         | 33           |                            |              |
| York -----                 | 63           |                            |              |
| South Carolina Total ----- | 1883         |                            |              |

*\*SUPPLEMENTARY LIST OF STUDENTS, SECOND SEMESTER, 1939-1940*

|                                 |                  |                                |                   |
|---------------------------------|------------------|--------------------------------|-------------------|
| Allen, J. E. (1 T)†             | Gainesville, Ga. | Maybin, A. H. (2 ME)           | Whitmire          |
| Atkinson, D. H. (1 V Ag Ed)     | Turbeville       | Miller, M. B. (1 V Ag Ed)      | Lake View         |
| Bacon, R. D. (1 E)†             | Knoxville, Tenn. | Moore, C. M. (1 E)†            | Georgetown        |
| Bannister, J. C. (S)†           | Iva              | Norvell, H. H. (1 Ag Engr)†    | Augusta, Ga.      |
| Bing, W. K. (S)†                | Clemson          | O'Dell, W. T. (1 V Ag Ed)†     | Easley            |
| Blackmon, E. H. (1 E)†          | Atlanta, Ga.     | Oliver, G. E. (1 T)†           | Clover            |
| Bowen, W. C. (S)                | Clemson          | Parker, F. L. (2 CE)†          | Charleston        |
| Boyce, H. K. (1 TC)             | Cross Hill       | Parks, D. W. (1 E)†            | Greenville        |
| Cofer, W. O. (S)                | Wagener          | Perkins, G. O. (1 E)†          | Philadelphia, Pa. |
| Corley, E. J. Jr. (3 Agr)       | Lexington        | Philpot, C. P. (S)             | Clemson           |
| DeLorme, A. C. Jr. (1 Pre-Med)† | Maplewood, N. J. | Platt, J. M. (2 GS)            | Wedgfield         |
| Dobbins, R. B. (1 T)            | Rock Hill        | Rickman, A. M. (1 E)†          | Greenville        |
| Fomby, H. C. (1 A)              | Orangeburg       | Riddick, A. T. (3 EE)          | Florence          |
| Gage, G. (S)                    | Clemson          | Schaffer, J. L. (1 A)†         | Brooklyn, N. Y.   |
| Gilmer, J. B. (2 Ar)†           | Louisa, Va.      | Scarborough, F. B. (1 V Ag Ed) | Bishopville       |
| Goodman, C. J. (S)†             | Paw Creek, N. C. | Sedberry, B. R. (2 EE)         | Hartsville        |
| Goodman, S. B. Jr. (1 EE)       | Mountville       | Shields, J. L. (2 A)†          | Murphy, N. C.     |
| Gwin, T. J. (1 GS)†             | Augusta, Ga.     | Smith, L. B. (3 GS)            | Rainelle, W. Va.  |
| Kerr, W. E. (1 A)               | Columbia         | Strunk, L. M. (1 A)†           | Miami Beach, Fla. |
| LaGrone, W. E. (2 CE)           | Johnston         | Talley, R. D. (S)†             | Salem             |
| Lambo, A. F. (1 E)              | Cheshire, Conn.  | Templeton, W. W. (1 A)†        | Spartanburg       |
| Lindsay, J. B. (3 CE)           | Clemson          | Thomson, J. W. (2 GS)          | Seneca            |
| Little, P. P. (1 A)†            | Catawba, N. C.   | Vicaria, J. (3 T)              | Clemson           |
| Long, P. P. (1 E)†              | Knoxville, Tenn. | Walker, G. B. M. (S)           | Greenville        |
| McCormick, J. D. (1 E)          | North            | Watson, J. D. (S)              | Florence          |
| McFadden, N. J. (S)             | Sardinia         | Wenige, A. E. (2 CE)†          | Asheville, N. C.  |

\*Students enrolled for the second semester who were not enrolled for the first semester. In this list, students are classified according to their credits at the beginning of the second semester; new students admitted at the beginning of the second semester are indicated by a dagger (†).

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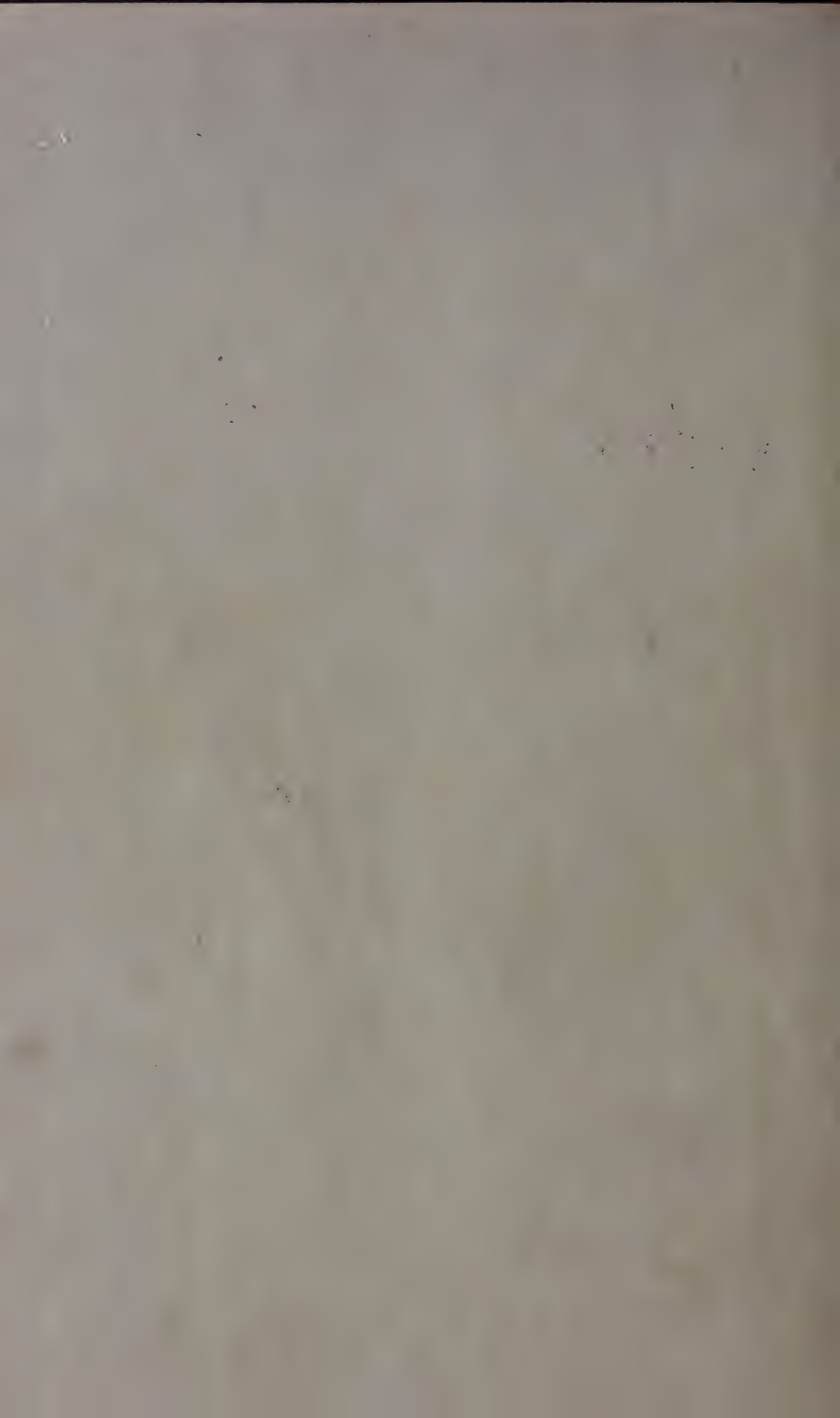






















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